



**Department of Applied Science**

**List of PBL Project- 2021-22**

| Academic Year          | Group No.            | Name of Student              | Name of Guide /Mentor   | Project Title   |
|------------------------|----------------------|------------------------------|-------------------------|---|
|                        | 1                    | AHER DIPAK VILAS             | Prof. Megha Anil Bhusal | The Future of online gaming innovation, Esport, and Virtual Economies   |
|                        |                      | AHER TEJASWINI KAILAS        |                         |   |
|                        |                      | ARGADE GANESH SUNIL          |                         |   |
|                        |                      | BACHHAV ATHARVA SANJAY       |                         |   |
|                        |                      | BARIA JAHANVI TUSHARBHAI     |                         |   |
|                        |                      | BENDKULE KIRTI DNYANESHWAR   |                         |   |
|                        |                      | BHADANE UMESH BHATU          |                         |   |
|                        |                      | BHAGADE MANOHAR MINANATH     |                         |   |
|                        |                      | BHAMARE LALIT ASHOK          |                         |   |
|                        |                      | BHAMARE SAURAV MANOJ         |                         |   |
|                        |                      | BHAVALA OM SANJAY            |                         |   |
|                        | 2                    | BORSE GAURAV NARAYAN         |                         | "Covind-19: An Interdisciplinary Examination of its Impact on Economy, Health, Society, Education, Global Collaboration, Environment, Technology, and Long-Term Implications" |
|                        |                      | CHAUDHARI PRATIK BHATU       |                         |   |
|                        |                      | CHAUDHARY HARINDRA RAMNIVAS  |                         |   |
|                        |                      | CHAUHAN DIYA RADHESHYAM      |                         |   |
|                        |                      | CHAVAN ANAND VILAS           |                         |   |
|                        |                      | CHAVAN PRITESH SUNIL         |                         |   |
|                        |                      | CHAVHAN NIKHIL RAJENDRA      |                         |   |
|                        |                      | CHIKHALE SHUBHAM DEVIDAS     |                         |   |
|                        | 3                    | DAMBALE LAHU KHANDU          |                         | "Deadlock Avoidance using Dining Philosophers Problem"  |
|                        |                      | DEORE MEGHA PRAKASH          |                         |   |
|                        |                      | DESHMUKH ALKESH CHANDRAKANT  |                         |   |
|                        |                      | DESHMUKH NIKITA GANESH       |                         |   |
|                        |                      | DESHMUKH SWARAJ PRAVIN       |                         |   |
|                        |                      | DHONNAR RAHUL DNYANESHWAR    |                         |   |
|                        |                      | GADAKH NAKUL SURESH          |                         |   |
|                        |                      | GAIKWAD SANKET KAILAS        |                         |   |
|                        |                      | GARUD RUTESH BALASAHEB       |                         |   |
|                        |                      | GIRASE SAMRUDDHI UJJWALSINGH |                         |   |
|                        | GOSAVI VAIBHAV ASHOK |                              |                         |   |
|                        | 4                    | JADHAV ASHWINI MANOHAR       |                         | Automatic Water Dispenser Using Arduino   |
|                        |                      | JADHAV GAYTRI BHARAT         |                         |   |
|                        |                      | JADHAV SHEKHAR SUBHASH       |                         |   |
|                        |                      | JADHAV TEJAS TARACHAND       |                         |   |
|                        |                      | KADLAG SANKET SANJAY         |                         |   |
|                        |                      | KADU TANISHA JAYESH          |                         |   |
| KALE SNEHA ASHOK       |                      |                              |                         |   |
| KAPADNE KARTIK BHARAT  |                      |                              |                         |   |
| KOKATE AVISHKAR VASANT |                      |                              |                         |   |
| LOKESH RAJENDRA JAGTAP |                      |                              |                         |   |
|                        |                      | MAHAJAN RAJ BHARAT           |                         |   |
|                        | MAHAJAN YASH KIRAN   |                              |                         |   |
|                        | MALI HARSHAL KHUSHAL |                              |                         |   |

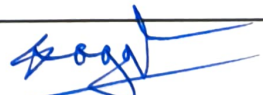
2021-22

|                        |                            |
|------------------------|----------------------------|
| 5                      | MONDHE PRANAV KAILAS       |
|                        | NAGARE GAYATRI GOKUL       |
|                        | NAGARE SWAPNIL MANOJ       |
|                        | NAGRALE RAJRATNA ASHOK     |
|                        | NIKUMBH KARTIK KISHOR      |
| 6                      | PAGAR JAYESH SANGRAM       |
|                        | PARHAD SAGAR BABASAHEB     |
|                        | PATIL BHAVESH SHRIKANT     |
|                        | PATIL KHUSHI HARSING       |
|                        | PATIL PIYUSH VIJAY         |
|                        | PATIL SUMIT BAJIRAO        |
|                        | PATKAR CHAITALI VINAYAK    |
|                        | PAWAR BHAGYASHRI VISHNU    |
|                        | PAWAR DARSHAN SUNIL        |
|                        | PAWAR ROSHAN VIJAY         |
| 7                      | PAWAR RUTUJA CHANDRAKANT   |
|                        | PAWAR TEJASWINI BHARAT     |
|                        | PAWAR YAMINI ARUN          |
|                        | PAWAR YASH BHAUSAHEB       |
|                        | POWAR RUSHIKESH MARUTI     |
|                        | PRADHAN ANKIT BHARAT       |
|                        | RAJGURU UNNATI SANJAY      |
|                        | RAJPUT MAYUR RAJENDRA      |
|                        | RANE SUYASH RAVINDRA       |
|                        | SADGIR BHAGYASHRI SUBHASH  |
| 8                      | SANAP MAHESH NAVNATH       |
|                        | SHIMPI PIYUSH KISHOR       |
|                        | SHINDE PRANAV SOMNATH      |
|                        | SHINDE RUSHIKESH SANTOSH   |
|                        | SHIRSATH GIRISH MADHUKAR   |
|                        | SHIRSATH SIDHARTH DILIP    |
|                        | SONAWANE SAHIL PRAKASH     |
|                        | UGLE ASHISH KHANDU         |
|                        | VARMA AASHISH RAMGAMAN     |
|                        | WAGH HEMRAJ VASANT         |
| 9                      | WAGH HRISHIKESH ARUN       |
|                        | KAMBALE NIKHIL RAJENDRA    |
|                        | RANE SUHAS SHAM            |
|                        | TAKATE DNYANESHWAR VISHVAS |
|                        | GAYKWAD SANDEEP JAIRAM     |
|                        | SHINDE AKSHAY KACHESHWAR   |
|                        | RATHOD ATUL SAINATH        |
|                        | SHINDE JAYESH PRALHAD      |
|                        | WARGHADE GANPAT SOMA       |
|                        | GORE PRATIK ASHOK          |
| PATIL ANUJ JITENDRA    |                            |
| NIKAM KISHOR BHAUSAHEB |                            |
| DEORE AKSHAY BHAUSAHEB |                            |
| DEORE ABHISHEK RAMDAS  |                            |
| KAKLIJ SHIVAM EKNATH   |                            |

Prof. Megha Anil Bhusal

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|--|
| Campus Recruitment                     |
| Doorbell cum visitor indicator circuit |
| LPG Leakage Detector Circuit.          |
| LED Indicators                         |
| Renewable Energy Source                |

  
**F.E Coordinator**  
**Prof. Bagul S.G**

  
**Principal**  
**Prof. (Dr.) Bagal S.B**





**Department of Applied Science**  
**List of PBL Project-2022-23**

| Academic Year | Group No. | Name of Student                   | Name of Guide /Mentor | Project Title                                  |
|---------------|-----------|-----------------------------------|-----------------------|--|
|               | A11       | AHAMAD MO FAISHAL HAQUE MO SHAKIR |                       | To Save the Pricous time (e-commerce)          |
|               | A13       | AHER DARSHAN NITIN                |                       | Covid -19 Effect on the world                  |
|               | A11       | AHER POOJA POPAT                  |                       | Covid -19 Effect on the world                  |
|               | A11       | AHIRE VRUSHALI KIRAN              |                       | Solar mobile charger                           |
|               | A11       | ANDHALE SHUBHAM NAMDEO            |                       | Solar mobile charger                           |
|               | A11       | AVHAD AKSHADA TUKARAM             |                       | Solar mobile charger                           |
|               | A11       | BACHHAV AKSHITA MAHENDRA          |                       | Solar mobile charger                           |
|               | A12       | BACHHAV YASH GANESH               |                       | Deadlock Avoidance using Dinning philo.problem |
|               | A12       | BAGUL LAUKIK DILIP                |                       | Deadlock Avoidance using Dinning philo.problem |
|               | A12       | BARI AJINKYA HIRALAL              |                       | Deadlock Avoidance using Dinning philo.problem |
|               | A1        | BEHERE GITESH ANANTA              |                       | Covid -19 Effect on the world                  |
|               | A1        | BHAMARE MANAS UMESH               |                       | Deadlock Avoidance using Dinning philo.problem |
|               | A13       | CHAVAN OM AVINASH                 |                       | Covid -19 Effect on the world                  |
|               | A1        | DATIR SUMIT RAJENDRA              |                       | Deadlock Avoidance using Dinning philo.problem |
|               | A12       | DUSING PRATHAM SUNIL              |                       | Deadlock Avoidance using Dinning philo.problem |
|               | A1        | GADAKH MAHESH RAJENDRA            |                       | Covid 19 Research                              |
|               | A12       | GADHE ANIKET DHANRAJ              |                       | Deadlock Avoidance using Dinning philo.problem |
|               | A11       | GAIKWAD BHAGYASHRI ANKUSH         |                       | Solar mobile charger                           |
|               | A12       | GAIKWAD DURGESH RAJENDRA          |                       | Covid 19 Research                              |
|               | A11       | GAVALI ROSHANI SURESH             |                       | Solar mobile charger                           |
|               | A1        | GAVATE RAVINDRA MOTIRAM           |                       | Covid 19 Research                              |
|               | A1        | GHARE ABHIJIT SANJAY              |                       | Covid 19 Research                              |
|               | A12       | GIRASE SAURABH JITENDRA           |                       | Deadlock Avoidance using Dinning philo.problem |
|               | A12       | GOHOKAR HARSHAL MAROTI            |                       | Deadlock Avoidance using Dinning philo.problem |
|               | A10       | GURULE SAKSHI KAILAS              |                       | Solar mobile charger                           |
|               | A10       | HIRE SUSHIL SURYABHAN             |                       | Solar mobile charger                           |
|               | A21       | HYALJI JAYDIP SANDIP              |                       | Solar mobile charger                           |
|               | A21       | JADHAV GOVARDHAN ASHOK            |                       | Automobile water dispen. Using Arduino.        |
|               | A22       | JADHAV MAYURI SANTOSH             |                       | Bank Management system                         |
|               | A21       | JADHAV PRANAV JAYWANT             |                       | Automobile water dispen. Using Arduino.        |
|               | A22       | JAGTAP ARTI VINAYAK               |                       | Bank Management system                         |
|               | A12       | KALADGI SHEEBAN ATEEQUE           |                       | Analysis of bot of twitter for india           |
|               | A21       | KAPADNIS AADESH SUNIL             |                       | Automobile water dispen. Using Arduino.        |
|               | A2        | KHAIRNAR ROHIT MANOHAR            |                       | Automobile water dispen. Using Arduino.        |
|               | A2        | KHARMARE TANUJA RANGANATH         |                       | Bank Management system                         |
|               | A2        | LAKDE RUSHIKESH DADA              |                       | Analysis of bot of twitter for india           |
|               | A2        | LOLGE SIDDHARTH SUDARSHAN         |                       | Analysis of bot of twitter for india           |
|               | A2        | MALI MANAV NITIN                  |                       | Analysis of bot of twitter for india           |
|               | A2        | MOGAL SHIVAM SANJAY               |                       | Analysis of bot of twitter for india           |
|               | A2        | MOHANE GAURAV SURESH              |                       | Automobile water dispen. Using Arduino.        |
|               | A2        | MORE ADITYA RAVINDRA              |                       | Automobile water dispen. Using Arduino.        |
|               | A2        | MULIK SHIVANJALI DEEPAK           |                       | Bank Management system                         |
|               | A22       | NAGARE KANCHAN SUKDEV             |                       | Bank Management system                         |

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|-----|----------------------------------|
| 122 | NIKAM SWAPNIL SANJAY             |
| A23 | PAGAR ANKUSH RAVINDRA            |
| A23 | PAITHANKAR CHANDRAKANT DATTATRAY |
| A22 | PARDESHI SHREYA SANJAYSINGH      |
| A23 | PATIL ABHIJEET DINESH            |
| A22 | PATIL GAYATRI RAVINDRA           |
| A21 | PATIL NAYAN SHYAM                |
| A32 | PATIL PAVAN BHAGWAN              |
| A31 | PATIL PRATIK ANIL                |
| A31 | PATIL SANJANA SHAILENDRA         |
| A33 | PATIL YASH KISHOR                |
| A33 | RAUNDAL DARSHANI DINESH          |
| A33 | SAPTE AKSHAY SANJAY              |
| A31 | SAWANT CHETAN SHANTILAL          |
| A31 | SHARMA ABHISHEK MANOJ            |
| A33 | SHELKE AJAY BALASAHEB            |
| A22 | SHELKE RUTUJA SUNIL              |
| A32 | SHINDE PANKAJ PRAKASH            |
| A32 | SHIRSATH KRUSHNA PANDHARINATH    |
| A31 | SINGH NITINKUMAR NAVEEN          |
| A31 | SONAWANE PURUSHOTTAM BHAGWAN     |
| A33 | TAMBE ADITYA VASUDEV             |
| A3  | NATHE YUVRAJ KAMLAKAR            |
| A32 | THAKUR JAYKUMAR NITIN            |
| A33 | THETE PRASAD NITIN               |
| A32 | THORAT MANOJ RAJENDRA            |
| A32 | USHIR JAYESH DIPAK               |
| A32 | VASAIKAR YASH GANESH             |
| A31 | VIDHATE YASH SACHIN              |
| A32 | WISE PRANAV RAJENDRA             |
| A3  | WAGH SAKSHI BHAUSAHEB            |
| A33 | WAJE SAGAR SANJAY                |
| A33 | WAKCHAURE OM SUNIL               |
| A3  | GADAKH KUNAL SANJAY              |
| B1  | AHIRE ANAND SAMADHAN             |
| B1  | ANASUNE GAURI DIGAMBAR           |
| B12 | BHADANGE OM CHANDRAKANT          |
| B14 | BHAMARE KOMAL DHANANJAY          |
| B1  | BHAMARE PALAVI CHANDRAKANT       |
| B1  | BHAMARE ROSHAN KISHOR            |
| B11 | BHARASKAR GANESH KACHARU         |
| B11 | BHOLE KOMAL RAVINDRA             |
| B1  | BORASE GAYATRI AMRUT             |
| B1  | CHATUR DHANSHREE MUKUND          |
| B1  | CHAUDHARI ROHIT DIPAK            |
| B1  | CHAUDHARI RUSHIKESH DILIP        |
| B1  | CHAVAN JAYESH SUNIL              |
| B1  | CHAVAN NITIN DATTU               |
| B1  | CHOUDHARI VIDYA SANDIP           |
| B1  | DARADE PRANJAL SHARAD            |
| B11 | DATE CHAITANYA VILAS             |
| B11 | DAUND RUTUJA SUBHASH             |
| B11 | DEORE AKSHAY MOHAN               |
| B11 | DHONDAGE BHUSHAN MADHUKAR        |
| B1  | DOKHE LAKHAN BALU                |
| B1  | FARGADE JANHAVI MANOHAR          |
| B1  | GAGE VISHAL MARUTI               |
| B1  | GAVIT KALPESH RAMESH             |
| B1  | GIRASE RUSHIKESH ANANDSING       |
| B2  | GOSAVI AKSHAY GANGADHAR          |

2022-23

Prof. Rahul Shinde

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| Bank Management system                  |
| Finger in to a switch                   |
| Automobile water dispen. Using Arduino. |
| Bank Management system                  |
| Analysis of bot of twitter for india    |
| Bank Management system                  |
| Electric Vehicle                        |
| Automatic water Despensar               |
| Snitch bot                              |
| Bank Management system                  |
| Campus Recruitment                      |
| Campus Recruitment                      |
| Campus Recruitment                      |
| Snitch bot                              |
| Snitch bot                              |
| Campus Recruitment                      |
| Bank Management system                  |
| The Devasting global Imp.of garbage     |
| The Devasting global Imp.of garbage     |
| Snitch bot                              |
| Snitch bot                              |
| Campus Recruitment                      |
| Campus Recruitment                      |
| The Devasting global Imp.of garbage     |
| Campus Recruitment                      |
| The Devasting global Imp.of garbage     |
| The Devasting global Imp.of garbage     |
| The Devasting global Imp.of garbage     |
| The Devasting global Imp.of garbage     |
| Snitch bot                              |
| The Devasting global Imp.of garbage     |
| Solar mobile charger                    |
| Campus Recruitment                      |
| Campus Recruitment                      |
| Campus Recruitment                      |
| Internet of things                      |
| Tic Tac Toe game                        |
| Automobile managements system           |
| Tic Tac Toe game                        |
| Tic Tac Toe game                        |
| Internet of things                      |
| Internet of things                      |
| Internet of things                      |
| Internet of things                      |
| Internet of things                      |
| Internet of things                      |
| Automobile managements system           |
| Internet of things                      |
| Internet of things                      |
| Internet of things                      |
| Tic Tac Toe game                        |
| Tic Tac Toe game                        |
| Automobile managements system           |
| Automobile managements system           |
| Internet of things                      |
| Automobile managements system           |
| Automobile managements system           |
| Tic Tac Toe game                        |
| Tic Tac Toe game                        |
| Automobile managements system           |
| Automobile managements system           |
| Electric Vehicle                        |

|     |                               |
|-----|-------------------------------|
| B2  | JADHAV TANMAY SHAMRAO         |
| B2  | JAGTAP NILAMPARI JAYESH       |
| B2  | KADAM VAISHALI RAVINDRA       |
| B2  | KAKAD DARSHANA DINKAR         |
| B23 | KALAL HITESH DATTATRAY        |
| B2  | KAPALE GAYATRI JITENDRA       |
| B2  | KHADE TEJASWINI RAJENDRA      |
| B2  | KHAIRNAR ABHAY EKNATH         |
| B2  | KOTHAWADE RICHA SUDHAKAR      |
| B2  | MAHAJAN BHAGYASHRI GOVIND     |
| B23 | MAHAJAN MANAS RAGHUNATH       |
| B23 | MAHALE SIDDESH DATTATRAY      |
| B2  | MATSAGAR HARSHAD SANJAY       |
| B2  | MOKALE VAIBHAV BHAUSAHEB      |
| B2  | NAIR VIVEK RAMADAS            |
| B2  | NAVALE VAIBHAV SANTOSH        |
| B2  | NIKAM KANCHAN ANNASAHEB       |
| B2  | NIMASE NIDHI PANDURANG        |
| B2  | PANDEY HIMANSHI PRADEEP       |
| B23 | PARDESHI CHETAN MAHADU        |
| B23 | PATIL ANIKET VIJAY            |
| B2  | PATIL AYUSH VIJAY             |
| B23 | PATIL BHUSHAN RAJENDRA        |
| B2  | PATIL MANISH ARUN             |
| B3  | PATIL SIDDHANT MAHENDRA       |
| B32 | PATIL SNEHAL NAVNEET          |
| B3  | PATIL YOGESH JAYRAM           |
| B3  | PAWAR ABHISHEK BALU           |
| B3  | PAWAR DARSHAN RAJENDRA        |
| B3  | PAWAR SIDDHARTH ANANTRAO      |
| B3  | PAWAR YASH KAILAS             |
| B3  | PRIYANKA MALI                 |
| B3  | BHAVALE RAJASHREE VISHNU      |
| B3  | SANER TANMAY RAJESH           |
| B33 | SANGALE SHARANG SURESH        |
| B33 | SAVANT PAVAN EKNATH           |
| B33 | SHAIKH MOHSIN SOHRAB AHMED    |
| B33 | SHINDE SATYAM RAJENDRA        |
| B33 | SHINDE SHUBHAM SUKDEO         |
| B33 | SINGH PRASHANT RAJESH         |
| B3  | SONAWANE GAURI PRAVIN         |
| B33 | SUMRAO DARSHAN ARUN           |
| B33 | SURYAWANSHI SAKSHI RAVINDRA   |
| B3  | TAMBE TANISH ASHOK            |
| B34 | TARE GANESH GORAKH            |
| B34 | THETE GANESH VILAS            |
| B3  | TRIPATHI SANIYA RAJNARAYAN    |
| B3  | VASAIKAR TANSVI SHARADCHANDRA |
| B3  | WAGH SUJAL KAMALAKAR          |
| B3  | WALUNJ AAKASH SUJIT           |
| B3  | JADHAV DISHA BHAUSAHEB        |

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|--|
| Electric Vehicle                       |
| To save the Pricous time of computer   |
| To Save the Pricous time (e-commerce)  |
| To Save the Pricous time (e-commerce)  |
| Lease the car                          |
| To Save the Pricous time (e-commerce)  |
| To Save the Pricous time (e-commerce)  |
| Electric Vehicle                       |
| To Save the Pricous time (e-commerce)  |
| To Save the Pricous time (e-commerce)  |
| Lease the car                          |
| Lease the car                          |
| The future of gaming                   |
| Electric Vehicle                       |
| Electric Vehicle                       |
| The future of gaming                   |
| e-commerce website                     |
| To Save the Pricous time (e-commerce)  |
| To Save the Pricous time (e-commerce)  |
| Lease the car                          |
| Lease the car                          |
| Electric Vehicle                       |
| Lease the car                          |
| Electric Vehicle                       |
| The future of online gaming innovation |
| Artificial inteligence and robotics    |
| Touch sensor : turning your            |
| Farm buddy mgmt.                       |
| online gaming                          |
| online gaming                          |
| Touch sensor : turning your            |
| Artificial inteligence and robotics    |
| Artificial inteligence and robotics    |
| Farm buddy mgmt. System                |
| Touch sensor : turning your            |
| Farm buddy mgmt. System                |
| Farm buddy mgmt. System                |
| Farm buddy mgmt. System                |
| Farm buddy mgmt. System                |
| Artificial inteligence and robotics    |
| Farm buddy mgmt. System                |
| Artificial inteligence and robotics    |
| Touch sensor : turning your            |
| Touch sensor turning your              |
| Touch sensor turning your              |
| Artificial inteligence and robotics    |
| Artificial inteligence and robotics    |
| Artificial inteligence and robotics    |
| Touch sensor turning your              |
| Artificial inteligence and robotics    |

**F.E Coordinator**  
**Prof. Bagul S.G**

**Principal**  
**Prof. (Dr.) Bagal S.B**





KALYANI CHARITABLE TRUST'S

**LATE G. N. SAPKAL COLLEGE OF ENGINEERING**



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## Project Based Learning

(Guidelines and Work Book)

**Course Code: 110013**

(2019 Course)

## First Year Engineering

Year: 2021 - 2022

Group ID: 05

- Team Members: 1. Mahajan Raj Bharat  
2. Mahajan Yash Kiran  
3. Mali Harshal Khusal  
4. Mondhe Pranav Kailas  
5. Nagare Gayatri Gokul

Project Title : "Compus Recruitment"

Name of Mentor: Prof. Megha Bhusal

Kalyanii Charitable Trust's



Kalyanii Charitable Trust's

## Late G. N. Sapkal College of Engineering

Sapkal Knowledge Hub, Kalyanii Hills, Anjaneri-Wadholi, Trimbakeshwar Road,  
Nashik- 422213, Maharashtra, India

### CERTIFICATE

This is to certify that Mr. / Miss. Mahajan Raj Bharat  
of class FE Division A Roll No. 1141 Examination Number  
         has satisfactorily completed his experiments / practical term work in the subject  
Project Based Learning as prescribed by University of Pune, during of Academic year 2021 -  
2022.

Subject In charge

HOD

Principal

## **PBL-Lab Workflow**

### **Week-I Activities:** Formation of Group and Identify Problem Statement.

- Formation of Students Group (4 to 5 maximum).
- Allocation of Mentor/Guide/Supervisor.
- PBL is Student Centric Activity; involvement of each student is must.
- Students have freedom to work on choice of domain/area.
- Students should identify at least 3 to 4 real-life problem statements by its own.

### **Week-II Activities:** Literature Review.

- Discussion of each problem statement with Guide/Mentor/Supervisor.
- Formulate problem statement with literature review.
- Group will carry out literature review.
- Group will present it to facilitator.
- Guide/Mentor/Supervisor will help students to fine tune problem statement.
- Finalization of problem statement.

### **Week-III Activities:** Requirement Collection/Analysis and Feasibility Study.

- Group will gather all the specific details required for a system.
- Group will determine the first ideas for prototypes.
- Define any prototype system requirements.
- Evaluate alternatives to existing prototypes.
- Perform research and analysis to determine the needs of end-users.
- Create a software requirement specification or SRS document.
- Group will perform feasibility study for a system like, Economic, Legal, Operational Feasibility, Technical and Schedule.

### **Week-IV Activities:** Design System Architecture.

- Group will outline the details for the overall application along with specific aspects like, User Interfaces, System Interfaces, Network and its requirements, Databases.
- Group will prepare work flow diagram /block diagram as a proposed system.
- Group will find tools and technologies required.
- Decide Software Development Programming Language.

### **Week-V & VI Activities:** Coding/Implementation.

- Group will start building the entire system by writing code using chosen Programming Language.
- Tasks are divided into units or modules and assigned to the various developers.
- Group needs to follow certain predefined coding guidelines.
- Also need to use programming tools like compiler, interpreters, debugger to generate and implement the code.



### **Week-VII & VIII Activities: Testing.**

- Group will test a system by Unit Testing, Integration Testing, Manual Test cases.
- Final testing takes into consideration top concerns including scale, network connectivity, and overall software reliability.
- Software testing involves logging product defects as reported, then tracking resolution and ultimately verifying that the change made is working correctly
- Group will check that both customer expectations and quality standards are met or not.

### **Week- IX & X Activities: Report Generation, Presentation.**

- Group will write a project report by considering a Software Development Life Cycle.
- Group will also create a PowerPoint Presentation Slides.
- Group should be ready with Final Project Report, Workbook, PowerPoint Presentation Slides for demonstration of a system.

### **Presentation Template**

- Abstract
- Introduction
- Literature Survey
- Problem Statement
- Motivation
- Scope of the Project
- Objectives
- Requirement Analysis
- Software Requirement Specification
- Methodology/ Proposed System Block Diagram
- Software and Hardware Requirements
- Implementation
- Results/Test Cases
- Challenges Faced
- Conclusion and Future Scope
- References

### **Weekly Progress and Guidance**

Group will present a progress to facilitator  
facilitator will correct them if required

.....  
.....

Repeat this process for 8 weeks

Ask group to modify their presentation according to progress every week.

### **Report Formatting Instructions:**

Paper Size A4

Margins: L:1.25 inch or 3.2 cm, R : T : B : 1.0 inch or 2.5 cm", Header and Footer 0.5 inch or 1.27 cm

Font : Times New Roman

Chapter Title : 16 (bold), Subtitle :14 (bold), Text : 12

Images – jpg, png.

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(Followed by Inner Project Report after this page)*

## **1. Abstract**

Date:

### **Project Title: Campus Recruitment System**

Campus Recruitment System aims at providing the compatibility to simplify the process of placement for students. This system that consists of a student login, company login and an admin login. This is beneficial for college students, various companies visiting the campus for recruitment and even the college placement office. The software system allows the students to create their profiles and upload all their details including their marks on to the system. The admin can check each student's details and can remove faculty accounts. The system also consists of a company login where various companies visiting the college can view a list of students in that college and also their respective resumes. The software system allows students to view a list of companies who have posted for vacancy. The admin has overall rights over the system and can moderate and delete any details not pertaining to college placement rules. Generally, nowadays every college is conducting a placement drive to provide maximum employment for the students so conducting placement drives is not only necessary we need to make the reach of those drives to students. So this Campus Recruitment System application provides the solution. In this application the admin will add the Coordinators, Co-coordinators are the persons who bring the placements to the college so when the coordinator gets logged into the application he can add the next coming drive details by giving Company Name, Departments to attend and the informatory videos and images. After adding the coordinator admin can upload the materials for students. Students can know which type of question is being asked and information about that placement. In this application, the drives which are going outside the college are not known to coordinators. So the students have an opportunity to add other placements. After adding other placements admin will see the other placements if the company is good he will not delete the details if the details are fake or company is not nice admin will delete the drive details.

## **2. Introduction**

A college Campus Recruitment System that consists of a student login, company login and an admin login. The project is beneficial for college students, various companies visiting the campus for recruitment and even the college placement officer. The software system allows the students to create their profiles and upload all their details including their marks onto the system. The admin can check each student details and can remove faulty accounts. The system also consists of a company login where various companies visiting the college can view a list of students in that college and also their respective resumes. The software system allows students to view a list of companies who have posted for vacancy. The admin has overall rights over the system and can moderate and delete any details not pertaining to college placement rules. The system handles student as well as company data and efficiently displays all this data to respective sides. The major aim of campus placement is to identify the talented and qualified professionals before they complete their education. It provide employment opportunities to students who are pursuing or in the final stage of completing the course. This process reduces the time for an industry to pick the candidates according to their need. It is a cumbersome activity and hence majority of the companies find it difficult to trace the right talent. Many students do not understand the importance of placement training that is being imparted, whether it is an aptitude training or soft skills. They show the least interest in this due to various factors viz., projects, assignments or more of activities loaded by the colleges as part of their curriculum thinking that it is not useful. It is the responsibility of the companies training on placement to make the students equipped on all aspects of career development along with creating a very good impact in them which makes them feel every minute they spend in the placement training session is worth being there and will help them in getting placed in their dream companies. In this application the admin will add the Coordinators, Co-coordinators are the persons who bring the placements to the college so when the coordinator gets logged into the application he can add the next coming drive details by giving Company Name, Departments to attend and the informatory videos and images. After adding the coordinator admin can upload the materials for students. Students can know which type of question is being asked and information about that placement. In this application, the drives which are going outside the college are not known to coordinators. So the students have an opportunity to add other placements. After adding other placements admin will see the other placements if the company is good he will not delete the details if the details are fake or company is not nice admin will delete the drive details.

3.

### Literature Survey

1] **Campus Recruitment Management**: Platform based on dynamic electronic commerce by Diksha Varshney, Bhumika Sharma, Somya Jain in 2014. In this paper the electronic recruitment systems are used to facilitate and improve human resource management. They address the needs of employers and job-seekers via internetworking means which increase the speed of employment, and improve the quality of recruitment and services and They become vital assistance to human discrimination to put right people in right places. Due to the rapid change in jobs demands and the required specialization and experience, it becomes more and more difficult for recruiters to find employees that are right for their business state the units for each quantity that you use in an equation.

2] **Campus employment information network development based on android platform** by ca, zhongxi in 2015. In this paper, system development have no greater difficulty. SQLite offers structured data store and at the same time, the amount of the resource is very low so they need less memory space and processing speed has very fast. Development of mobile communication technology, mobile phone transmission is more faster based on more powerful information Processing Extensible ability as well as 3G high speed Data Transmission. This android application are written in powerful java language and it is also support the another language like C. this application has no boundary and it can be accessible the core function of mobile devices via standard API.

3] **Information System Based On College Campus by Shilpa Bilawane, Pranali Jambhulkar in 2015**. In this paper Android mobile apps is used to provide information regarding there college and Android is the fastest growing open source mobile device platform, which in turn is powered by Linux operating system. Android offers a simple yet powerful application development framework and also open access APIs to build richer mobile applications. Android is a software stack for mobile devices that includes an operating system, middleware and key applications.

4] **Web Based Placement Management System by Anjali, Jeyalakshmi, Anubala. R, Sri Mathura Devi. G, Ranjini. V in 2016**. In this paper, the development of the system is improved providing more facilities. The system can overcome all the limitation of the existing system, such as student's information is maintained in the database, it also gives more security to data, ensures data accuracy as well as reduces paper work and save time, only eligible students get chance, it makes information flow efficient and paves way for easy report generation, reduce the space and system becomes cost effective.

#### **4. Problem Statement**

The recruitment system allows the job seekers to view the job opportunity through Advertisement and helps to apply for the job. The organization shortlist the applicants for the interview. The shortlisted applicants undergo through a process of Test and Interview. The HR department selects the Applicant based on the performance in the Test and Interview. Finally the recruited applicants are informed. This system makes the task of the job seeker easier rather than waiting in queue for enrollment. This also reduces the time consumption for both for the job seeker and organization.

## 5. Motivation

- Improves accuracy
- Centralized data
- Efficient and quick relevant data
- Bridge between jobseekers and companies
- Easiest way to search job and job seekers
- Online candidate evaluation

## **6. Scope of the Project**

- Useful for college campus recruitment process.
- Helpful for training and placement department.
- The system will be helpful to the students
- Get an idea of placement process from past reviews.



## **7. Objectives**

- To know about various companies and their strategies.
- To study the recent trends and challenges
- To identify the talented and qualified students.
- To reduces the time for an industry.

## **8. Requirement Analysis**

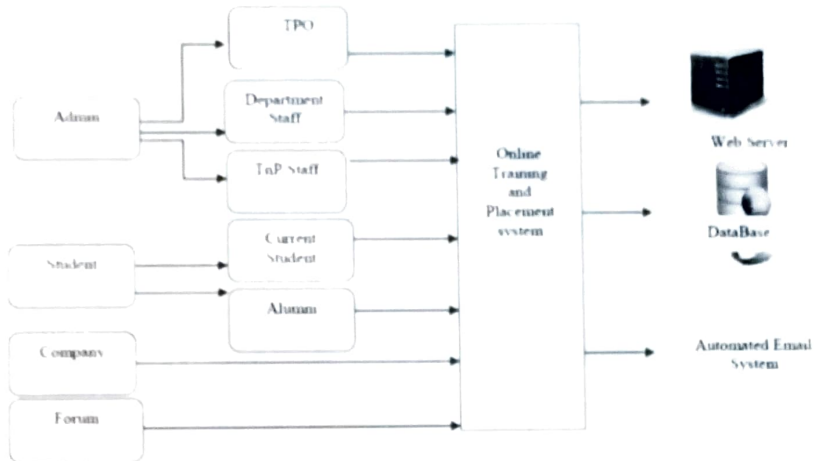
### **➤ Functional Requirements .**

- Administrator Access to system.
- Administrator will train to system and generate rules-set.
- User can register into the system.
- User can login into system any time and give input to system.

### **➤ Non Functional Requirements.**

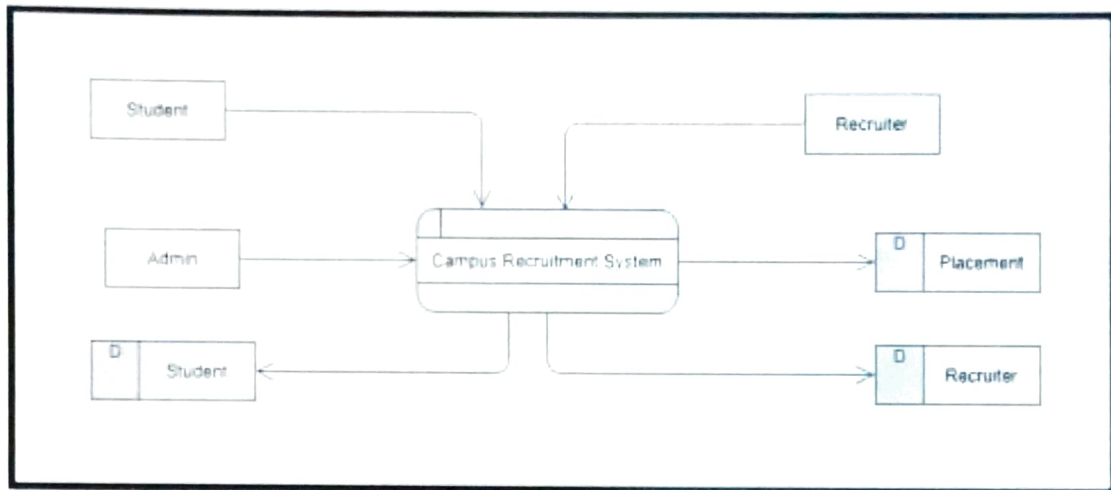
- Accurate estimated output to the user.
- Able to increase the efficiency and performance of prediction results.
- Allow user to access information anytime .

## 9. Software Flow Diagram

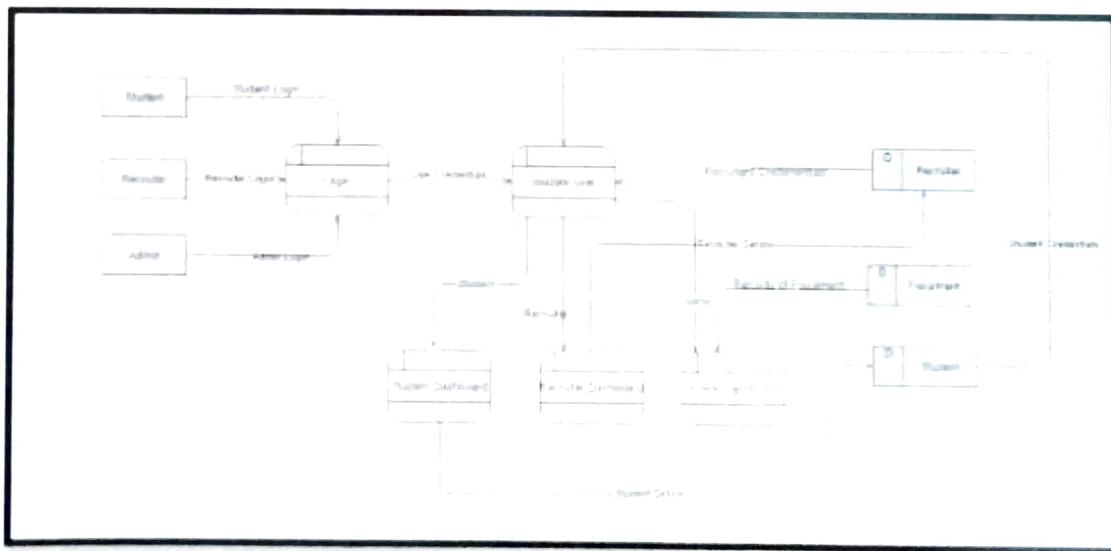


In the above block Diagram the system overview is displayed which shows how the project will work. The students will be able to login and start coding while as the teachers will be able to assign assignments to them and also maintain their record. An entity relationship model, also called an ER diagram, is a graphical representation of entities and their relationships to each other, typically used in computing in regard to the organization of data within database or information system.

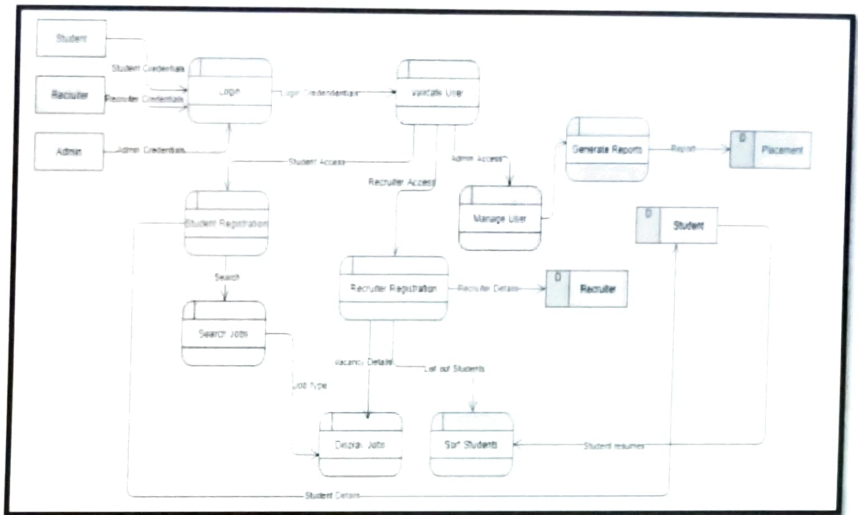
## 10. Data Flow Diagram (DFD)



0<sup>th</sup> level DFD



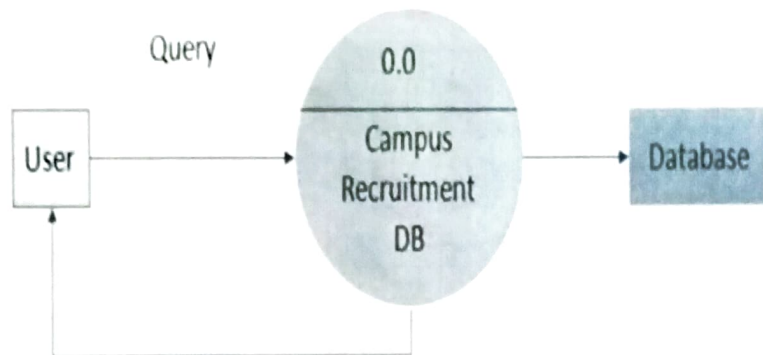
1st Level DFD



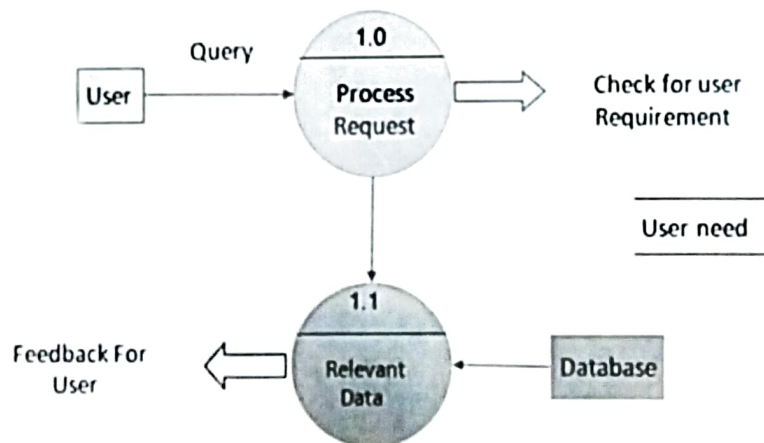
2nd Level DFD

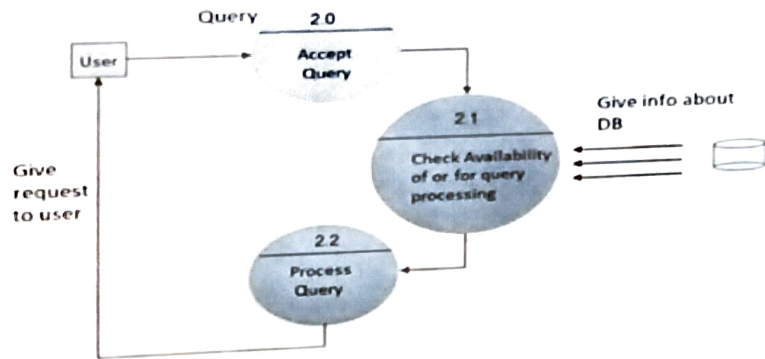
## 11. Methodology and Proposed System Block Diagram

□ Level- 0



□ Level 1

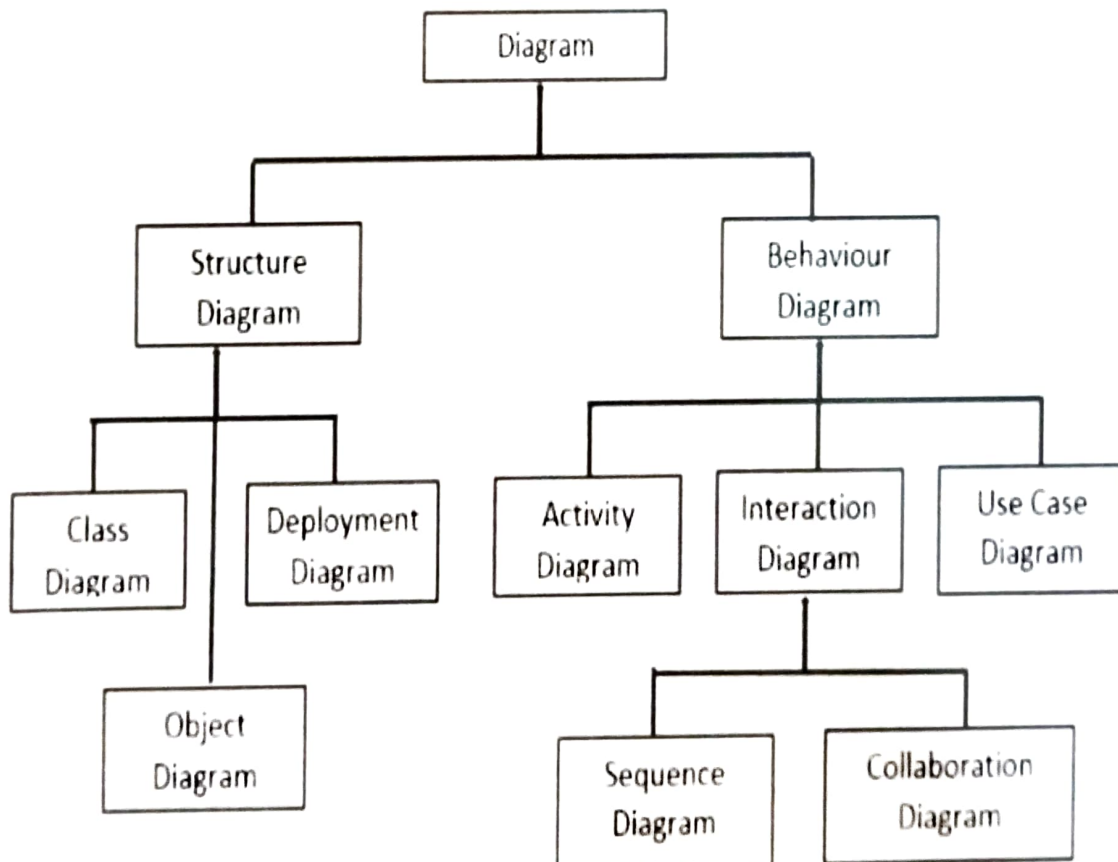




## 12. UML Diagrams

UML stands for Unified Modelling Language. The approach used by UML is called as object-oriented approach for the development of models. UML is used in converting reality with the help of simplest models. The major contributors to UML are of James Rumbaugh Ivar Jacobson and Grady Brooch and the Rational Software Corporation. Because of great contribution of the people and organization above, UML is accepted as a standard modelling language by OMG. The UML modelling consist of following diagrams to model a software system and those diagrams are:-

1. Object Diagram
2. Class Diagram
3. Use-Case Diagram
4. Sequence Diagram
5. Activity Diagram
6. Collaboration Diagram
7. Deployment Diagram





## **13. Software and Hardware Requirement**

### **➤ Hardware Requirements**

- Computer (i3 /i5/Ryzen3/Ryzen5 Processor Based)
- RAM- 2 GB
- 50 GB Hard Disk
- Internet Connection

### **➤ Software Requirements**

- Operating System- Windows 7 or higher
- Browser – Chrome/Edge/Firefox/OperaMini
- WAMP Server
- Notepad++
- My SQL 5.6

## 14. Test Cases

### 8.3 Company Login :-

| Test Case id | Test Case   | Test Data                    | Excepted Result                                       | Actual Result                                      | Status |
|--------------|---|------------------------------|---|--|--------|
| TC1          | Whether clicking on submit button without E-mail id and password it allows login or not.          | Click on submit button       | System does not allow Admin to login.                 | System displays message & resume to the same page. | pass   |
| TC2          | Whether click on submit button with invalid email id and password it displays the message or not. | Email id:<br>compnay@123.com | It should display message 'Please fill out the field' | It displays message                                | pass   |
| TC3          | Whether by clicking on submit button with correct username and password it logins or not.         | Click on Submit button.      | System allow Admin to login                           | System allows Admin to access application          | pass   |

Fig. 8.3 Admin Login Test Cases

### 8.2 User Registration:

| Test cases id | Test Case   | Test Data                   | Expected Result  | Actual Result  | Status |
|---------------|---|-----------------------------|--|--|--------|
| TC1           | Whether the system accepts email in correct format.   | Email id = campus@gmail.com | System allows only character, number, symbol and @gmail.com  | System successfully accepted email id with its validation. | Pass   |
| TC2           | Whether the system accepts name in character format only and not number.  | Name = Sham                 | System allows only character                                 | System successfully accepted name with its validation.     | Pass   |
| TC3           | When we click on Password, password is show in "....." format.  | Password = .....            | System shows the password in "....." format.                 | System successfully show the password in "....." format.   | Pass   |
| TC4           | When we click on password field, we have to enter the character, number and special symbol.                               | Password = Mobil@a          | System allows the only character, number and special symbol. | System successfully accepted password with its validation. | Pass   |
| TC5           | When we click on mobile filed, system should accept only numeric value.   | Mobile Number = 7057901582  | System allows only 10 digit numbers.                         | System successfully allows the mobile number.              | Pass   |
| TC6           | When we click on Register button, system should check and store all record in database and it's allows to login the user. | Click on Register button.   | System store all record in the database after checking data. | Successfully Stored all record with in the database.       | Pass   |
| TC7           | When we click on Login button, system should go to the login page.  | Click on login button.      | System match the email id and password for login the user.   | Successfully login.  | Pass   |

Fig. 8.2 User Registration Test Cases

### 8.1 User Login :-

| Test case id | Test Case   | Test Data  | Excepted Result                                    | Actual Result                                      | Status |
|--------------|---|--|--|--|--------|
| TC1          | Whether clicking on submit button without E-mail id and password it allows login or not.          | Click on submit button                                   | System does not allow user to login.               | System displays message & resume to the same page. | Pass   |
| TC2          | Whether click on submit button with invalid email id and password it displays the message or not. | Email id:<br>abc@gmail.com<br>Password:<br>abc1          | It should display message 'Incorrect Credential's' | It displays message.                               | Pass   |
| TC3          | Whether by clicking on submit button with correct username and password it logins or not.         | Email id:<br>prosolve@gmail.com<br>Password:<br>mobcart1 | System allow user to login                         | System allows user to access application           | Pass   |

Fig. 8.1 User Login Test Case

## 15. Results

Result includes the information about how the operation executes and displays the result by giving various inputs. In this case after login with specific user name and password the user gets login and the main menu panel gets open in which the user can select the student from various colleges. After the selection, a notification of selection is send to the student that he is placed.



Fig 9.3 Registration

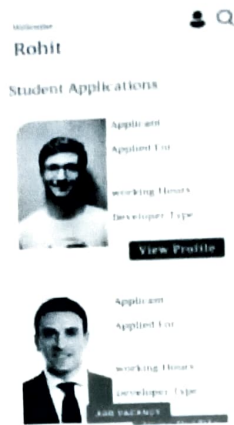
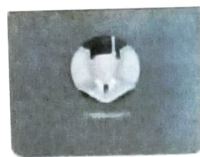


Fig 9.4 MainActivity (Company)



### Personal Details

Name  
Email  
Phone  
Address  
Date of Birth

### Educational Qualification

Degree  
Institute  
Year of Graduation

Fig 9.5 Student Profile



Fig 9.1 Login Screen



Fig 9.2 MainActivity(Student)

## 16. Challenges Faced

- Fake data inputs.
- verification of user.

## **17. Conclusion and Future Scope**

### **Conclusion :**

Increasing the need of comfort and inculcating all the data at one place has always been a challenging process for everybody. With the introduction of this web based training and placement portal we promise to make the lives of students and administration a little easier by proposing an alternative for the current system being used. Easy accessibility and functioning of this portal will allow easy management of the allocation process during placement period. With the increasing demand of digitalization in every aspect of day to day activities we can anticipate the great demand for such portals in the near future and the comfort it will bring with it to the lives of all. Also the rapidly increasing concerns of global warming due to increase deforestation for large amount of paper that it requires we here have a minor role to save Mother Nature. So we hope all of you can sit back and relax and enjoy the luxury of Digitalization. More so in the busy and exhausting life we are saving one of the most crucial factor that keeps us running that is human energy.

### **Future scope:**

- Incorporating AI and Machine Learning for smart search of jobs.
- Add a separate section to automatically create resume from given student data and also provide various templates to student to choose best one for them.
- Add SMS and email features to the project.
- Analysis of placement records and report generation for the same.
- Progressive Web App
- Integration of Github, Google, LinkedIn or others for login purpose. And extraction of student details from existing google or LinkedIn account.



## 18. References

### ➤ **Websites-**

- I. <https://stackoverflow.com>
- II. <https://tutorialspoint.com>
- III. <https://w3school.com>
- IV. <https://Wikipedia.com>