

# **OPTIONS TECHNIKA**

(WEBSITE DEVELOPMENT)

A Project-II Report

Submitted in partial fulfillment of requirement of the

Degree of

**BACHELOR OF TECHNOLOGY in COMPUTER SCIENCE &  
ENGINEERING**

BY

**Yash Jain**

**EN16CS301291**

Under the Guidance of

Internal Guide:

**Prof. Sachin Solanki**

External Guide:

**Mr. Nitesh Karmakar**



**Department of Computer Science & Engineering**

**Faculty of Engineering**

**MEDI-CAPS UNIVERSITY, INDORE- 453331**

**JAN-MAY 2020**

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**JAN-MAY 2020**

## **Report Approval**

The project work “**Options Technika** ” is hereby approved as a creditable study of an engineering/computer application subject carried out and presented in a manner satisfactory to warrant its acceptance as prerequisite for the Degree for which it has been submitted.

It is to be understood that by this approval the undersigned do not endorse or approved any statement made, opinion expressed, or conclusion drawn there in; but approve the “Project Report” only for the purpose for which it has been submitted.

Internal Examiner

Name:

Designation

Affiliation

External Examiner

Name:

Designation

Affiliation

## **Declaration**

I hereby declare that the project entitled “**Options Technika**” submitted in partial fulfillment for the award of the degree of Bachelor of Technology in ‘Computer Science & Engineering’ completed under the supervision of **Mr. Sachin Solanki, Assistant Professor, Computer Science & Engineering Dept.** Faculty of Engineering, Medi-Caps University, Indore is an authentic work.

Further, I/we declare that the content of this Project work, in full or in parts, have neither been taken from any other source nor have been submitted to any other Institute or University for the award of any degree or diploma.

---

**Yash Jain**  
**EN16CS301291**

**Date:** \_\_\_\_\_

## **Certificate**

We, **Prof. Sachin Solanki** and **Mr. Nitesh Karmakar** certify that the project entitled “**Options Technika (website development)**” submitted in partial fulfillment for the award of the degree of Bachelor of Technology by **Yash Jain** is the record carried out by him under our guidance and that the work has not formed the basis of award of any other degree elsewhere.

---

Prof. Sachin Solanki

Computer Science & Engineering

Medi-Caps University, Indore

---

Mr. Nitesh Karmakar

ML Developer

IBM-ICE

---

Dr. Suresh Jain

Head of the Department

Computer Science & Engineering

Medi-Caps University, Indore

## **Acknowledgements**

I would like to express my deepest gratitude to Honorable Chancellor, **Shri R C Mittal**, who has provided me with every facility to successfully carry out this project, and my profound indebtedness to **Prof. (Dr.) Sunil K Somani**, Vice Chancellor, Medi-Caps University, whose unfailing support and enthusiasm has always boosted up my morale. I also thank **Prof. (Dr.) D K Panda**, Dean, Faculty of Engineering, Medi-Caps University, for giving me a chance to work on this project. I would also like to thank my Head of the Department **Dr. Suresh Jain** for his/her continuous encouragement for betterment of the project.

I express my heartfelt gratitude to my **External Guide, Mr. Nitesh Karmakar**, Project Lead, as well as to my **Internal Guide, Prof. Sachin Solanki**, and **Prof. (Dr.) Ruchi Patel** Department of Computer Science & Engineering, Medi-Caps University, without whose continuous help and support, this project would ever have reached to the completion.

I would also like to thank to my team, Siddharth Bhawsar and Udit Jain who extended their kind support and help towards the completion of this project.

It is their help and support, due to which we became able to complete the design and technical report.

Without their support this report would not have been possible.

**Yash Jain**

B.Tech. IV Year

Department of Computer Science & Engineering

Faculty of Engineering

Medi-Caps University, Indore

## **Abstract**

As technology advances internet is becoming ever popular. Website has become an essential part. Often website of any organization is used as major requirements to rate it. Thus having a website is essential for any major organization.

As Options Technika needs to have a useful and stunning website to showcase the department and use as a medium to interact with interns, students, faculties and counsellors. Options Technika has 4 collaborators i.e. IBM, MAAC, Aviation and Learning. There was no such specific website for managing all the 4 parts under a single website so being an intern over there it was assigned to us to create such website. Assigning job to interns, assignment to students and to check the performance can be the major advantages of a website. On this project we will develop a website for the Options Technika. On this report almost every details that is necessary has been discussed. Every possible disclosures has been made to cover maximum areas of the project.

This report can be amended and changes can be made upon request from the stakeholders. The work will be done by a team with a supervisor from faculty member. A formal training phase is included in the project to train faculty members and office staffs on how to handle the website. Overall a useful website can be really helpful for the department.

## **Table of Contents**

<b>Chapters</b>	<b>Contents</b>	<b>Page No.</b>
	Report Approval	ii
	Declaration	iii
	Certificate	iv
	Acknowledgement	v
	Abstract	vi
	Table of Contents	vii
	List of figures	viii
Chapter 1	Introduction	1
	1.1 Introduction	2
	1.2 Objective	3
	1.3 About Organization	3
	1.4 Source of Data	4
Chapter 2	System Requirement Analysis	5
	2.1 Information Gathering	6
	2.2 Development and Deployment Tools	7
	2.3 Functional and Non Functional Requirement	7
Chapter 3	System Analysis	9
	3.1 Information Flow Representation	10
	3.2 ER Diagram	11
	3.3 Data Flow Diagram	13
Chapter 4	Project Assigned	16
	4.1 Project Assigned	17
	4.2 Tools & Technology Used	17
	4.3 Work Done & Observation	20
	4.4 Library Management System	20
	4.5 Game Development	21
	4.6 Website Development	22
Chapter 5	Testing	35
Chapter 6	Future Scope	38
Chapter 7	Learning after training	40
Chapter 8	Result and Conclusion	42
Chapter 9	Bibliography	44



## **List of Figures**

<b>Figure No.</b>	<b>Figure Name</b>	<b>Page No.</b>
3.1	ER Diagram	12
3.2	Data Flow Diagram	15
4.1	Main Menu	20
4.2	Display all Books	20
4.3	Add a Book	20
4.4	Lend a Book	20
4.5	Return a Book	20
4.6	Delete a Book	20
4.7	Welcome Screen of Game	21
4.8	Main Window of Game	21
4.9	Home Page	23
4.10	Courses Offered Page	24
4.11	About Us Page	25
4.12	Team Page	26
4.13	Contact Us Page	27
4.14	Enquiry Page	28
4.15	Enquiry Page	29
4.16	Registration Page	30
4.17	Login Page	31
4.18	Student Dashboard	31
4.19	Counsellor Dashboard	32
4.20	Counsellor Dashboard	32
4.21	Faculty Dashboard	33
4.22	Profile Page	34

# **Chapter-1**

## **INTRODUCTION**

## **1.1 Introduction**

As technology advances internet is becoming ever popular. Website has become an essential part. Often website of any organization is used as major requirements to rate it. Thus having a website is essential for any major organization. As Options Technika needs to have a useful and stunning website to showcase the department and use as a medium to interact with interns , students, faculties and counsellors . Options Technika has 4 collaborators i.e. IBM, MAAC, Aviation and Learning. There was no such specific website for managing all the 4 parts under a single website so being an intern over there it was assigned to us to create such website.

The targeted audience i.e. students, faculties as well as counsellors for the organization. The students, once enrolled, can access their profile, courses for which they have enrolled, assignment status, and notes provided to them by the respective faculty. In addition to this, students will also be able to see the projects that they have submitted and in general, their overall performance.

The faculties will be able to access and upload books as per their need. They will also be able to update the class schedules which can be accessed by the students to know the class time table. They also have the authority to upload assignment questions for the students and update students' attendance. The faculty can generate final report of the student as per the counsellor. Using the portal, the counsellor can have a status of the students' record and know the progress of each student towards enrolment.

Assigning job to interns, assignment to students and to check the performance can be the major advantages of a website. On this project we will develop a website for the Options Technika. On this report almost every details that is necessary has been discussed. Every possible disclosures has been made to cover maximum areas of the project.

## 1.2 Objective

The major aim of our organization is to ensure that the use of technology enhances the effective operations of the school of education. Furthermore, it will help reach the customers and target audience, establish themselves in the online space and ultimately increase their revenues.

You can simply go to google, type the name and location and this website comes up. This website gives all information of who the interior designer is, his contact and location, his clients as well as services he provides. Basically, an information website gives basic information about the company. This will lead to an environment that will help people know about the organization and also will lead to an interactive platform wherein the target audience can put up their queries which will be answered by the organization.

Some other objectives of the website include:

1. **Getting more Sales:** This objective will be based on the type of website. This will help convert visitors into leads and then those leads into sales.
2. **Brand building:** Nowadays building a brand is a requirement for long-term as only then one can establish oneself in any industry. Building a brand also helps in acquiring new prospects and making existing ones loyal. This will help ensure that the visitors are having a good time on the website .

## 1.3 Organisation / Introduction About The Industry

- The International Business Machines corporation is an american multinational information technology company headquartered in armong, New York, with operations in over 170 countries. IBM produces and sells computer hardware, middleware and software, and provides hosting and consulting services in areas ranging from mainframe computers to nanotechnology.

- The IBM Innovation Center for Education co-creates technology- and business-based undergraduate and graduate degrees in collaboration with leading universities and engineering colleges around the globe. By working with educators and other tech industry leaders, we prepare students to excel in the latest technology industry developments, including: AI, Blockchain, Cybersecurity tools, Cloud and Hybrid Multiclouds.

## **1.4 Source of Data**

Entire data which we have used in our website development is provided by the company itself. Many photos are provided by the company, some of them are used in the “Homepage” of our website in the Carousal. And some photos are used in “Our Team” page with a short description of the Faculty and Counsellor which is looking very attractive.

Along with this organization has provided us the list of courses with details and some of the confidential data like the details of all the students and their fee status.

## **Chapter-2**

# **SYSTEM REQUIREMENT ANALYSIS**

## 2.1 Information Gathering

Requirements analysis is the tasks that an analyst performs to structure and organize requirements, specify and model requirements and designs, validate and verify information, identify solution options that meet business needs, and estimate the potential value that could be realized for a solution option. Here are the main activities involved in requirement analysis:

- Identify customer's needs.
- Evaluate system for feasibility.
- Allocate functions to system elements.

The most important phase of the SDLC is the requirement gathering and analysis phase because this is when the project team begins to understand what the customer wants from the project. During this phase, the customer states the expectations of the project including who will use the product, how the customer will use the product, and the specific information included with any special customer requirements related to the software. The customer meets with business managers and analysts to provide the requirements. It's important for the project team to understand the needs of the customer because this information is critical to developing the product the customer requests. After the customer provides requirements for the product, the project manager and members of the project team begin to analyze the requirements. The business managers analyze each requirement to ensure the requirement can be included in the software without causing breaks or problems with system functionality.

## **2.2 Development & Deployment Tools**

### **2.2.1 Hardware Requirement**

- RAM:256 MB(Minimum)
- Processor:800MHz Intel Pentium III or equivalent
- Hard-Disk: 50MB or more.
- Internet access.

### **2.2.2 Software Requirement**

- Operating System: Linux OS (Ubuntu), Windows, Macintosh.
- Web Browser: Mozilla Firefox, Chrome, Microsoft Edge, IEs.
- Atom, Pycharm IDE.
- Sublime Text Editor

### **2.2.3 Technology Used**

- HTML5
- CSS
- Bootstrap
- Javascript
- Django
- SQLite

## **2.3 Functional & Non-Functional Requirements**

### **2.3.1 Functional Requirements**

1. The application provides a dashboard, homepage, and course pages to counsellor, student, faculty build using HTML and Django framework.
2. The application enables the student to enquire about any courses that organisation provide.



## **2.3.2 Non-Functional Requirements**

### **2.3.2.1 Performance Requirements:**

1. The web server must be able to handle and support multiple instances of application.
2. The time between request and reply should be less in case of online help.
3. Minimum time should be taken by the application to display the web pages.
4. In case of power failure, the data should be stored in the state that was last saved by the user.

### **2.3.2.2 Safety Requirements**

1. A tutor/student can be able to view/update only his dashboard.
2. If there is extensive damage to a wide portion of the database due to catastrophic failure, such as a disk crash, the recovery method restores a past copy of the database that was backed up to archival storage (typically tape) and reconstructs a more current state by reapplying or redoing the operations of committed transactions from the backed up log, up to the time of failure.

# **CHAPTER 3**

## **SYSTEM ANALYSIS**

### **3.1 Information flow representation**

There has been continuous effort to develop tools , which can ease the process of software development. But, with the evolving trend of different programming paradigms today's software developers are really challenged to deal with the changing technology. Among other issues, software re-engineering is being regarded as an important process in the software development industry. One of the major tasks here is to understand software systems that are already developed and to transform them to a different software environment.

Generally, this requires a lot of manual effort in going through a program that might have been developed by another programmer. This project makes a novel attempt to address the issue of program analysis and generation of diagrams, which can depict the structure of a program in a better way. Today, UML is being considered as an industrial standard for software engineering design process.

#### **UML**

UML stands for Unified Modeling Language is the successor to the wave of Object Oriented Analysis and Design ( OOA & D ) methods that appeared in the late 80 ' s most directly unifies the methods of Booch , Rumbaugh ( OMT ) and Jacobson . The UML is called a modeling language , not a method . Most methods consist at least in principle of both a modeling language and a process . The Modeling language is that notation that methods used to express design Notations and meta - models : The notation is the graphical stuff , it is the syntax of the modeling language . For instance , class diagram notation defines how items are concepts such as class association , and multiplicity is represented . Virtually every method has included some variation on this technique.

### 3.1.1 ER Diagram

The ER or (Entity Relational Model) is a high-level conceptual data model diagram. Entity-Relation model is based on the notion of real-world entities and the relationship between them. ER modeling helps you to analyze data requirements systematically to produce a well-designed database. Entity relationship diagram displays the relationships of entity set stored in a database. In other words, we can say that ER diagrams help us to explain the logical structure of databases. At first look, an ER diagram looks very similar to the flowchart. However, ER Diagram includes many specialized symbols, and its meanings make this model unique.

This model is based on three basic concepts:

1. Entities
2. Attributes
3. Relationship

**Entity:** An entity can be place, person, object, event or a concept, which stores data in the database. The characteristics of entities are must have an attribute, and a unique key. Every entity is made up of some 'attributes' which represent that entity.

**Relationship:** It is nothing but an association among two or more entities. E.g., Tom works in the Chemistry department.

**Attributes:** It is a single-valued property of either an entity-type or a relationship-type.

#### ER- Diagram Notations

ER- Diagram is a visual representation of data that describe how data is related to each other.

- 2 Rectangles: This symbol represent entity types
- 3 Ellipses : Symbol represent attributes
- 4 Diamonds: This symbol represents relationship types
- 5 Lines: It links attributes to entity types and entity types with other relationship types
- 6 Primary key: attributes are underlined
- 7 Double Ellipses: Represent multi-valued attributes

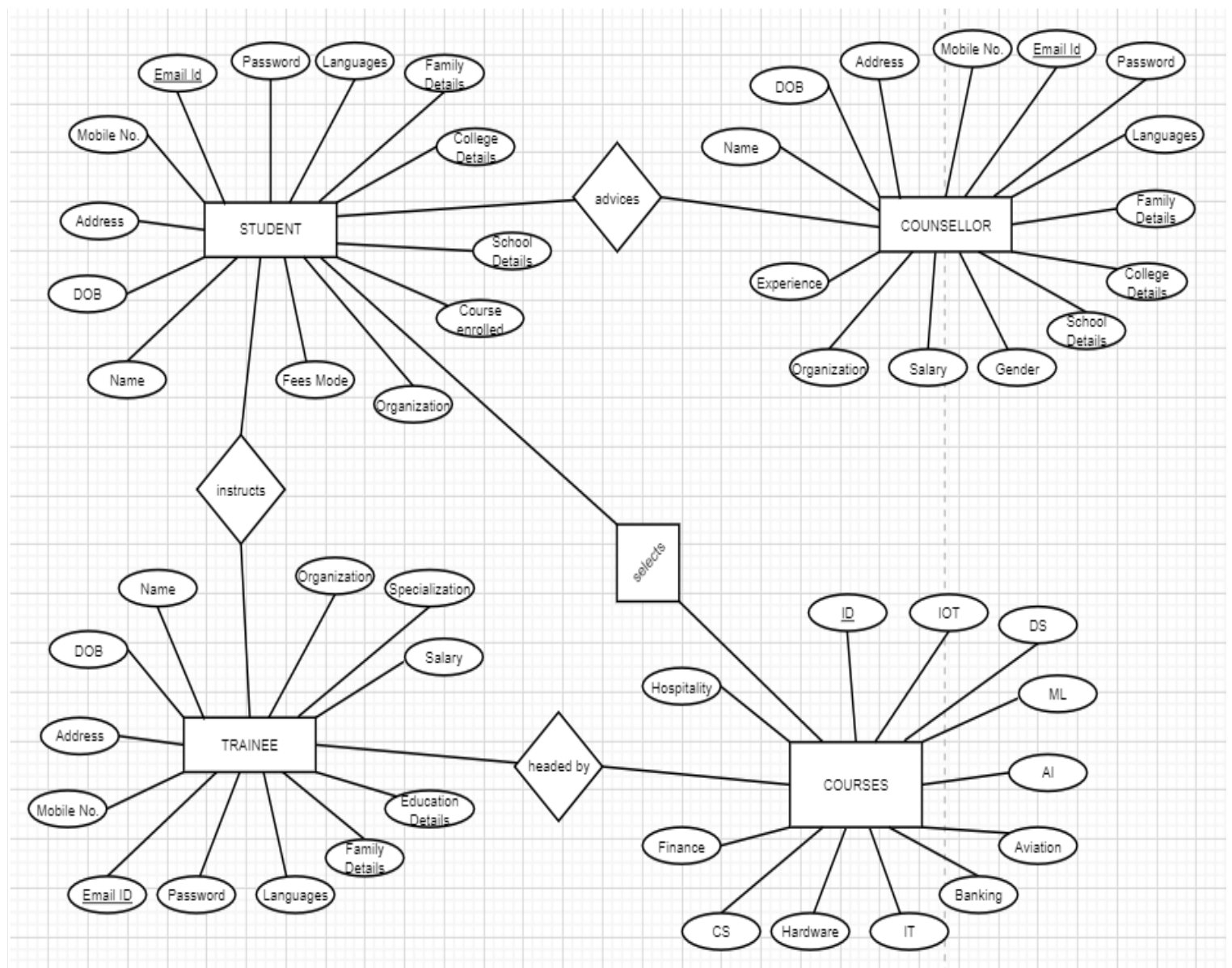


fig. 3.1 ER Diagram

### 3.1.2 Data Flow Diagram

Also known as DFD, Data flow diagrams are used to graphically represent the flow of data in a business information system. DFD describes the processes that are involved in a system to transfer data from the input to the file storage and reports generation.

Data flow diagrams can be divided into logical and physical. The logical data flow diagram describes flow of data through a system to perform certain functionality of a business. The physical data flow diagram describes the implementation of the logical data flow. The DFD may be used to perform a system or software at any level of abstraction.

Infact, DFDs may be partitioned into levels that represent increasing information flow and functional detail. Levels in DFD are numbered 0, 1, 2 or beyond. Here, we will see primarily three levels in the data flow diagram, which are: 0-level DFD, 1-level DFD, and 2-level DFD.

**0-level DFD** : It is also known as fundamental system model, or context diagram represents the entire software requirement as a single bubble with input and output data denoted by incoming and outgoing arrows. Then the system is decomposed and described as a DFD with multiple bubbles.

**1-level DFD**: In 1-level DFD, a context diagram is decomposed into multiple bubbles/processes. In this level, we highlight the main objectives of the system and breakdown the high-level process of 0-level DFD into subprocesses.

**2-Level DFD**: 2-level DFD goes one process deeper into parts of 1-level DFD. It can be used to project or record the specific/necessary detail about the system's functioning.

### DFD Symbols

There are four basic symbols that are used to represent a data-flow diagram.

1. **Process**: A process receives input data and produces output with a different content or form. Processes can be as simple as collecting input data and saving in the database, or it can be complex as producing a report containing monthly sales of all retail stores in the northwest region.

2. Data Flow: A data-flow is a path for data to move from one part of the information system to another. A data-flow may represent a single data element such the Customer ID or it can represent a set of data element (or a data structure).

3. Data Store: A data store or data repository is used in a data-flow diagram to represent a situation when the system must retain data because one or more processes need to use the stored data in a later time.

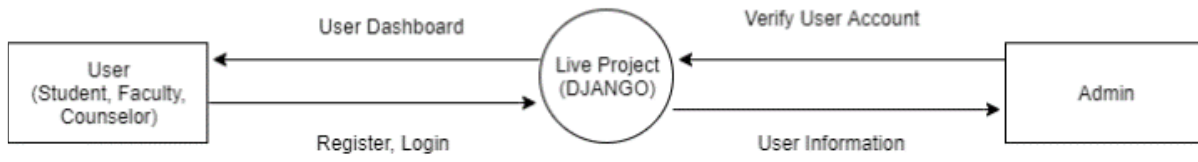
4. External Entity: An external entity is a person, department, outside organization, or other information system that provides data to the system or receives outputs from the system. External entities are components outside of the boundaries of the information systems. They represent how the information system interacts with the outside world.

- A rectangle represents an external entity
- They either supply data or receive data
- They do not process data

## **DFD rules**

1. Each process should have at least one input and an output.
2. Each data store should have at least one data flow in and one data flow out.
3. Data stored in a system must go through a process.
4. All processes in a DFD go to another process or a data store

LEVEL 0



LEVEL 1

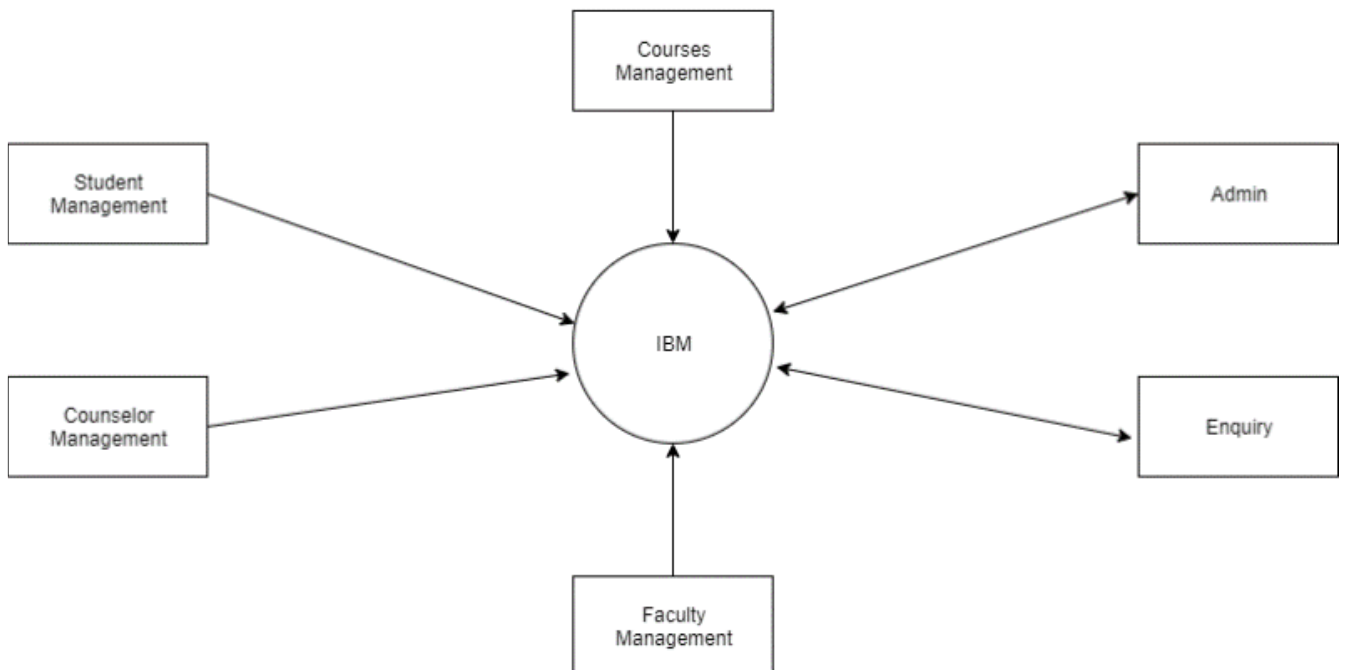


Fig 3.2 Data Flow Diagram



## **Chapter-4**

### **PROJECTS ASSIGNED**

## 4.1 Projects Assigned

- **Library Management System**

Library management system is all about organizing, managing the library and library-oriented tasks. It also involves maintaining the database of entering new books and the record of books that have been retrieved or issued, with their respective dates.

- **Game Development**

A game called Flappy Bird was made with Python as the core of all development. Along with this, Pygame library was used. In this game, bird needs to avoid collision with obstacles pipes .

- **Website Development**

An official website for Options Technika was assigned.

## 4.2 Tools & Technology Used

The tools used during the internship tenure are as follows –

- **Sublime Text Editor**

Sublime Text Editor is a shareware cross-platform source code editor with a Python application programming interface. It natively supports many programming languages and markup languages.

- **PyCharm**

PyCharm is an integrated development environment used in computer programming, specifically for the Python language. It is developed by the Czech company JetBrains.

- **Atom**

Atom is a free and open-source text and source code editor for macOS, Linux, and Microsoft Windows with support for plug-ins written in Node.js, and embedded Git Control, developed by GitHub. Atom is a desktop application built using web technologies.

- **MySQL**

MySQL is an Oracle-backed open source relational database management system (RDBMS) based on Structured Query Language (SQL). Although it can be used in a wide range of applications, MySQL is most often associated with web applications and online publishing.

The technologies used during the internship are as follows –

- **HTML**

HTML stands for Hyper Text Markup Language. It is the only markup language for creating web pages. HTML consists of a series of elements like some titles, headings, paragraphs, lists, table, embedded images, etc. to describe the structure of text-based information in HTML documents.

- **CSS**

CSS stands for Cascading Style Sheets. It is a stylesheet language used to describe the presentation of a document written in HTML or XML. CSS describes how elements should be rendered on screen, on paper, in speech, or on other media. CSS saves a lot of work. It can control the layout of multiple web pages all at once.

- **Bootstrap**

Bootstrap is the most popular HTML, CSS and JavaScript framework for developing responsive, mobile-first website. Bootstrap is a free front-end framework for faster and easier web development. Bootstrap includes HTML and CSS based design templates for performing various operations.

- **jQuery**

jQuery is a JavaScript library designed to simplify HTML DOM tree traversal and manipulation, as well as event handling, CSS animation, and Ajax. It is free, open-source software using the permissive MIT License.

- **SQL**

SQL stands for Structured Query Language. It is a domain-specific language used in programming and designed for managing data held in a relational database management system (RDBMS), or for stream processing in a relational data stream management system (RDSMS).

- **Python**

Python is an interpreted, high-level, general-purpose programming language.

- **Django**

Django is a Python-based free and open-source web framework, which follows the model-template-view architectural pattern.

- **Tkinter**

Tkinter is the Python interface to the GUI toolkit shipped with Python.

Geometry Management – pack(), grid(), place() methods. Tkinter Widgets – Button, Canvas, Checkbutton, Frame, Label, Listbox , Radiobutton, Text, Toplevel, etc.

- **Pygame**

Pygame is a cross-platform set of Python modules designed for writing video games. It includes computer graphics and sound libraries designed to be used with the Python programming language.

## 4.3 Work Done & Observations

### 4.3.1 Library Management System

During the period of internship. It was the first task which we have assigned to create a library management system. It was the first desktop application which we have created

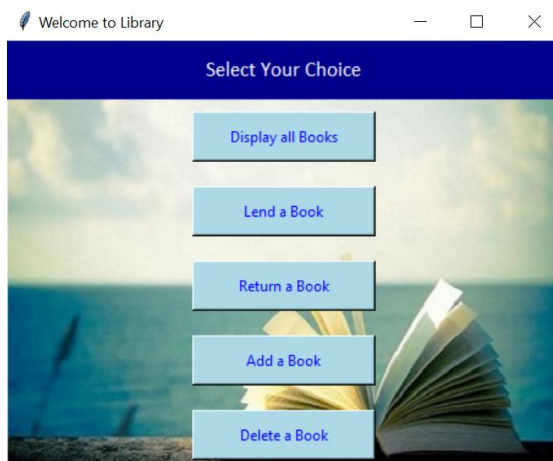


Figure 4.1 Main Menu

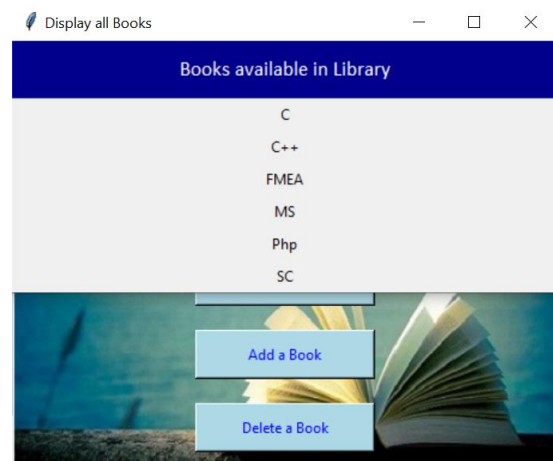


Figure 4.2 Display all Books

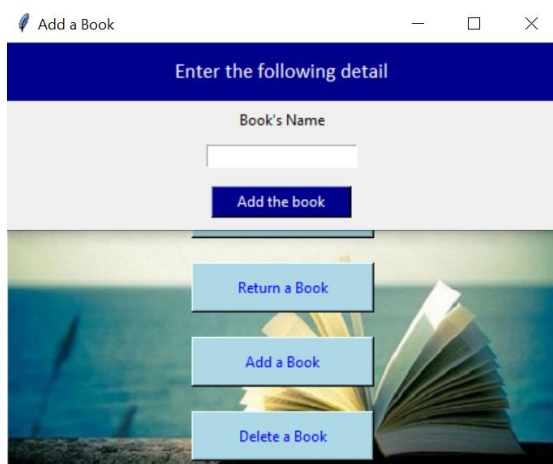


Figure 4.3 Add a Book

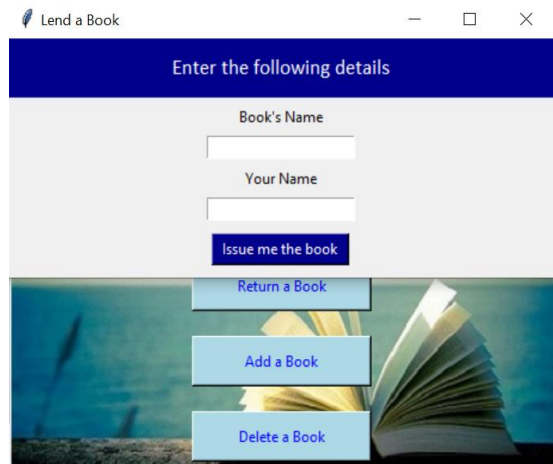


Figure 4.4 Lend a Book

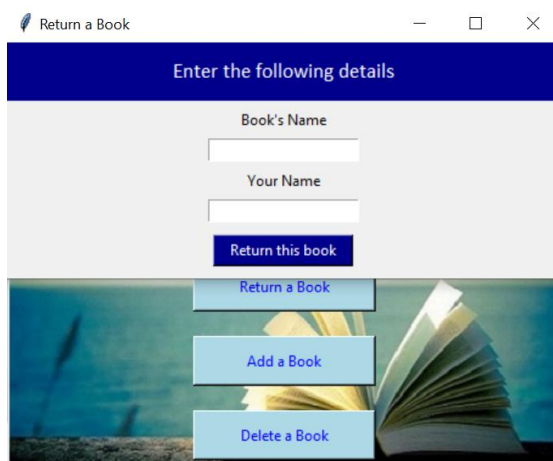


Figure 4.5 Return a Book

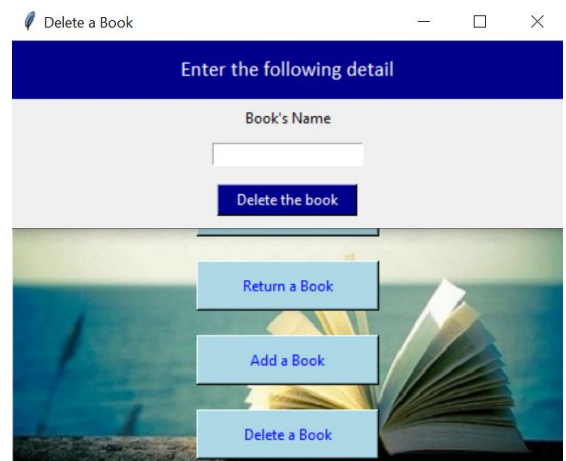


Figure 4.6 Delete a Book

### 4.3.2 Game Development

This task was a individual work, wherein I developed a game named ‘Flappy Bird’ using the pygame library. In this game, the bird needs to save herself by flying and to avoid colliding with obstacles i.e. pipes .



Fig. 4.7 Welcome Screen

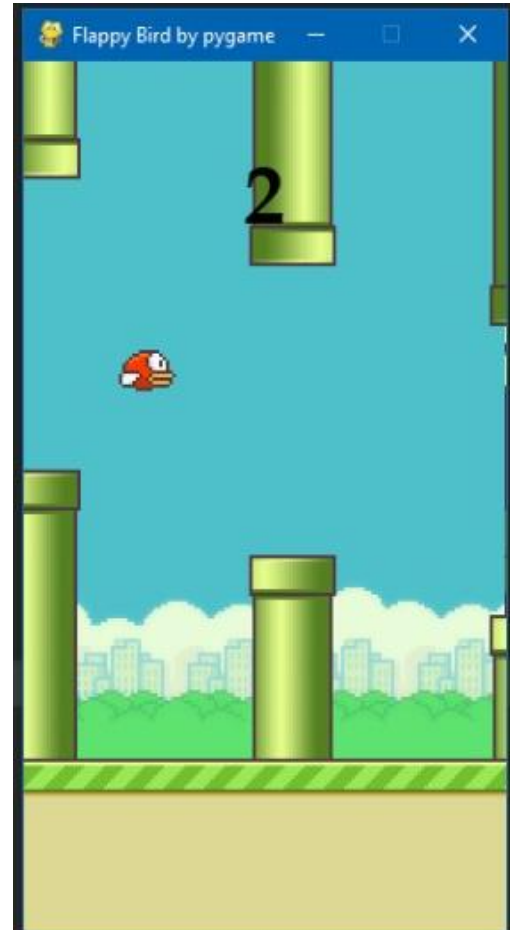


Fig 4.8 Game

### **4.3.3 Website Development**

The major aim of our organization is to ensure that the use of technology enhances the effective operations of the school of education. We will partner with faculty, students, and staff, both within, as well as, outside the firm to make technology integrate seamlessly with the teaching, research, and support operations of the corporation. And the way to do this is to identify the major user types visiting our site, speak to their needs and give them a clear action step to take next.

#### **4.3.3.1 Targeted Audience**

The targeted audience i.e. students, faculties as well as counselors for the organization. The students, once enrolled, can access their profile, courses for which they have enrolled and assignment status. The faculties will be able to access and upload assignments and projects as per their need. Using the portal, the counselor can have a status of the students' record and know the progress of each student towards enrollment.

#### 4.3.3.2 Website Specific Variable:

Following are the variables that are used in the project:

**Home:** This tab will take the user to the home page and will be accessible throughout the website.

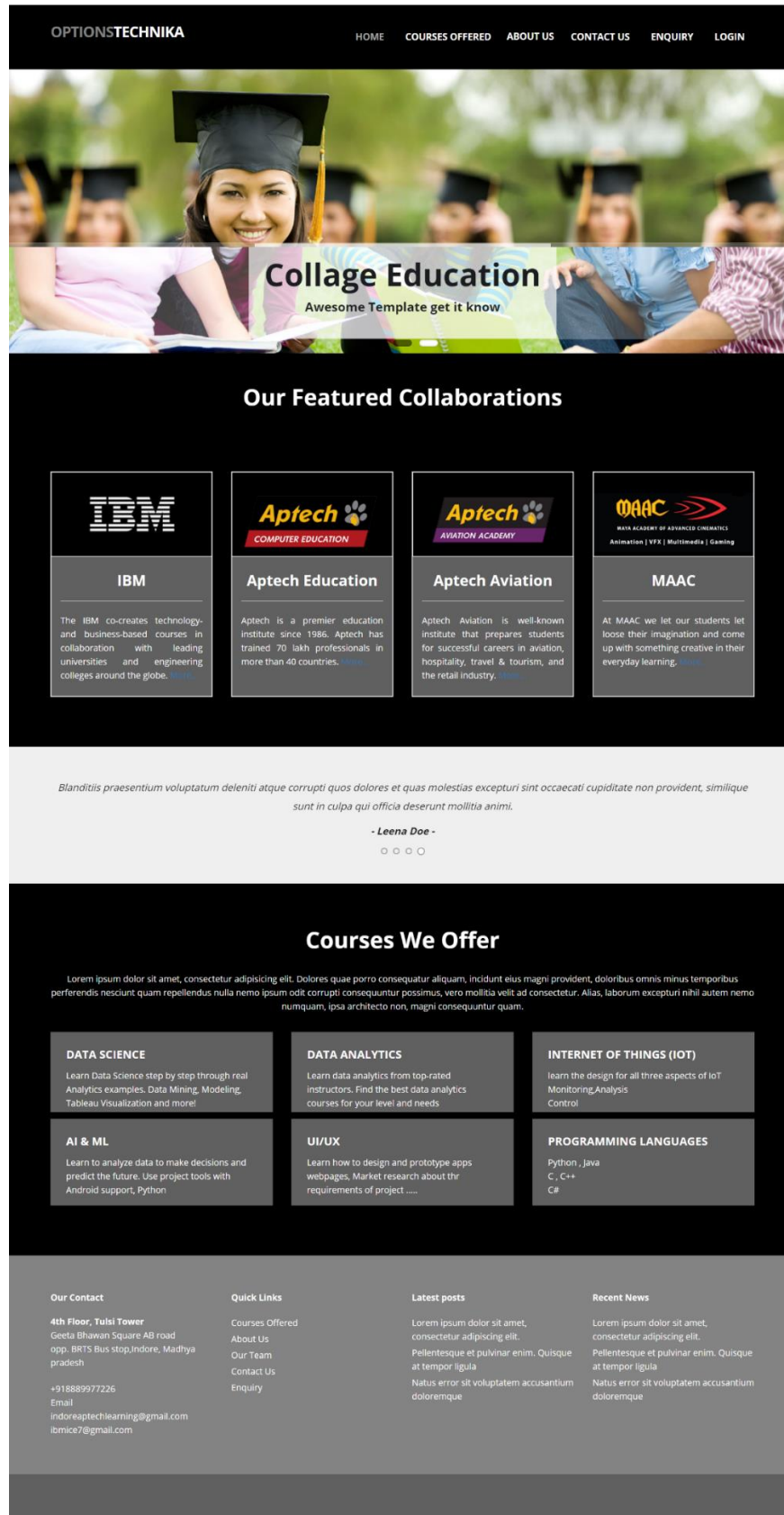



Figure 4.9 Home Page



**Courses Offered:** People visiting the website can have a look on all the courses available along with their description in order to choose their course. This helps the students to have all the information at one place which makes it much easier.

OPTIONSTECHNIKA
HOME
COURSES OFFERED
ABOUT US
CONTACT US
ENQUIRY
LOGIN


## Courses Offered



### Python using Web Development

Apply knowledge of UI design to develop mock-ups, new interaction models, and navigation schemes. Develop pixel perfect comps and assets for all projects.


[Details](#)



### Data Analytics

Proficient with ES6 and React.js. Must have a solid understanding of Redux. Should be able to build reusable components using states and props.


[Details](#)



### Data Science

Design and build applications for the iOS platform. Proficient with Swift. Ensure the performance, quality, and responsiveness of applications. Identify and correct bottlenecks and fix bugs.


[Details](#)



### Internet of Things

Apply knowledge of UI design to develop mock-ups, new interaction models, and navigation schemes. Develop pixel perfect comps and assets for all projects.


[Details](#)



### Artificial Intelligence & Machine Learning

Apply knowledge of UI design to develop mock-ups, new interaction models, and navigation schemes. Develop pixel perfect comps and assets for all projects.


[Details](#)



### Dot Net

Apply knowledge of UI design to develop mock-ups, new interaction models, and navigation schemes. Develop pixel perfect comps and assets for all projects.


[Details](#)



### PHP

Apply knowledge of UI design to develop mock-ups, new interaction models, and navigation schemes. Develop pixel perfect comps and assets for all projects.


[Details](#)



### Java using Web Development

Apply knowledge of UI design to develop mock-ups, new interaction models, and navigation schemes. Develop pixel perfect comps and assets for all projects.


[Details](#)



### Android Application Development

Apply knowledge of UI design to develop mock-ups, new interaction models, and navigation schemes. Develop pixel perfect comps and assets for all projects.

[Details](#)



### Hardware & Networking

Apply knowledge of UI design to develop mock-ups, new interaction models, and navigation schemes. Develop pixel perfect comps and assets for all projects.

[Details](#)

#### Our Contact

4th Floor, Tulsi Tower  
Geeta Bhawan Square AB road  
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#### Quick Links

Courses Offered  
About Us  
Our Team  
Contact Us  
Enquiry

#### Latest posts

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Natus error sit voluptatem accusantium  
doloremque

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at tempor ligula  
Natus error sit voluptatem accusantium  
doloremque

Figure 4.10 Courses Offered Page


**About Us:** Clicking on this tab, the user retrieves the page wherein he can explore about the company. In addition to this, the user can also learn about the courses offered and its details.

**OPTIONSTECHNIKA**[HOME](#)[COURSES OFFERED](#)[ABOUT US](#)[CONTACT US](#)[ENQUIRY](#)[LOGIN](#)

## About Us

### We are awesome TEAM

Option Technika co-creates technology- and business-based undergraduate and graduate degrees in collaboration with leading universities and engineering colleges around the globe. By working with educators and other tech industry leaders, we prepare students to excel in the latest technology industry developments, including: AI, blockchain cybersecurity tools, cloud and hybrid multiclouds.

[Read more](#)

### About Our Program

In this fast-changing world, new skills are becoming mission-critical for the success of organizations. Talent aligned to today's technological realities is in short supply, creating a barrier for growth. Industries need specialists in newer skill sets who can analyze the vast amount of data being generated and utilize this information to shape an organization's strategy and success.

The IBM Innovation Center for Education is offering three program engagement models for students in universities and engineering colleges. Together with leading universities the world over, it is putting forward a series of Bachelor of Technology (B. Tech) in Computer Science and Engineering (CSE) or Information Technology (IT) programs, as well as MBA programs.

It is a whole new way of thinking, and a cutting-edge approach to technology training.

### Why Choose Us?

At IBM, work is more than a job—it's a calling. To build. To design. To code. To consult. To think along with clients and sell. To make markets. To invent. To collaborate.

Not just to do something better, but to attempt things you've never thought possible. To lead in this new era of technology and solve some of the world's most challenging problems. Let's put smart to work.

### Specializations in the IBM Certificate in Advanced Technologies include:

Data Science

Internet Of Things

Blockchain

Machine Learning

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Figure 4.11 About Us Page

**Team:** This website along with other dashboards, provides description of their team, which includes the person's name along with the email.

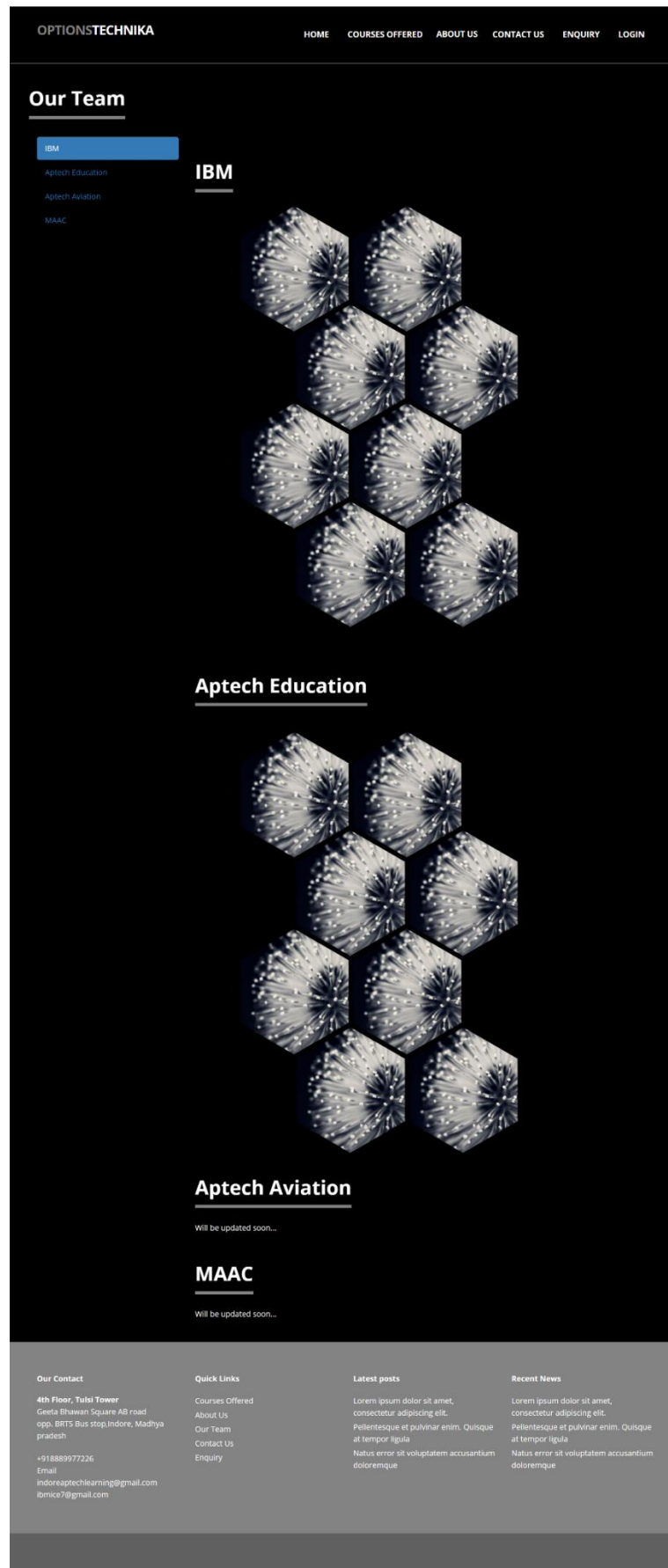


Figure 4.12 Team Page

**Contact Us:** Any doubts by the user, contact us is the tab to go for. Here there will be the address information as well as the contact numbers and email ids of various people in the company using which the user can contact and ask for queries.

OPTIONSTECHNIKA

HOME COURSES OFFERED ABOUT US CONTACT US ENQUIRY LOGIN

Contact Us

FULL NAME

YOUR EMAIL ID IS...

YOUR PHONE NUMBER IS...

Write here...

SUBMIT

Contact info

Lorem ipsum dolor sit amet, cadipiscing sit amet, consectetur adipiscing elit. Atque sed, quidem quis praesentium.

Lorem ipsum dolor sit amet, cadipiscing sit amet, consectetur adipiscing elit. Lorem ipsum dolor sit amet, cadipiscing sit amet, consectetur adipiscing elit. Atque sed, quidem quis praesentium Atque sed, quidem quis praesentium, ut unde fuga error commodi architecto, laudantium culpa tenetur at id, beatae pet.

**The Company Name.**  
**12345 St John Point,**  
**Brisbean, ABC 12 St 11.**  
 Telephone: +1 234 567 890  
 FAX: +1 234 567 890  
 E-mail: [mail@sitenam.org](mailto:mail@sitenam.org)

Our Contact

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Figure 4.13 Contact Us Page

**Enquiry:** A person willing to contact the company due to any reason can use this enquiry dashboard to put forward their questions which are further handled by the counselor.

OPTIONSTECHNIKA

HOME

COURSES OFFERED

ABOUT US

CONTACT US

ENQUIRY

LOGIN

Enquiry Page

Basic Details

Additional Information

Basic Details

Brand

MAAC ☒ IBM ☐ Aptech ☐ Aviation ☐ Computer Education ☐

First Name

Last Name

Mobile Number

Telephone Number

Email

Source of Enquiry

Campaign

Comments

Our Contact

4th Floor, Tulsi Tower

Geeta Bhawan Square AB road

opp. BRTS Bus stop,Indore, Madhya pradesh

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consectetur adipiscing elit.

Pellentesque et pulvinar enim. Quisque

at tempor ligula

Natus error sit voluptatem accusantium

doloremque

Figure 4.14 Enquiry Page

### Basic Details

### Additional Information

DOB	<input type="text"/>
Gender	<b>Male</b> <input checked="" type="radio"/> <b>Female</b> <input type="radio"/> <b>Others</b> <input type="radio"/>
Educational Qualification	<input type="text"/>
Country	<input type="text"/>
State	<input type="text"/>
City	<input type="text"/>
Permanent Address	<input type="text"/>
Pin Code	<input type="text"/>
Guardian's Name	<input type="text"/>
Guardian's Address	<input type="text"/>
Guardian's Mobile Number	<input type="text"/>
Guardian's Landline Number	<input type="text"/>
Father's Name	<input type="text"/>
Mother's Name	<input type="text"/>

## Our Contact

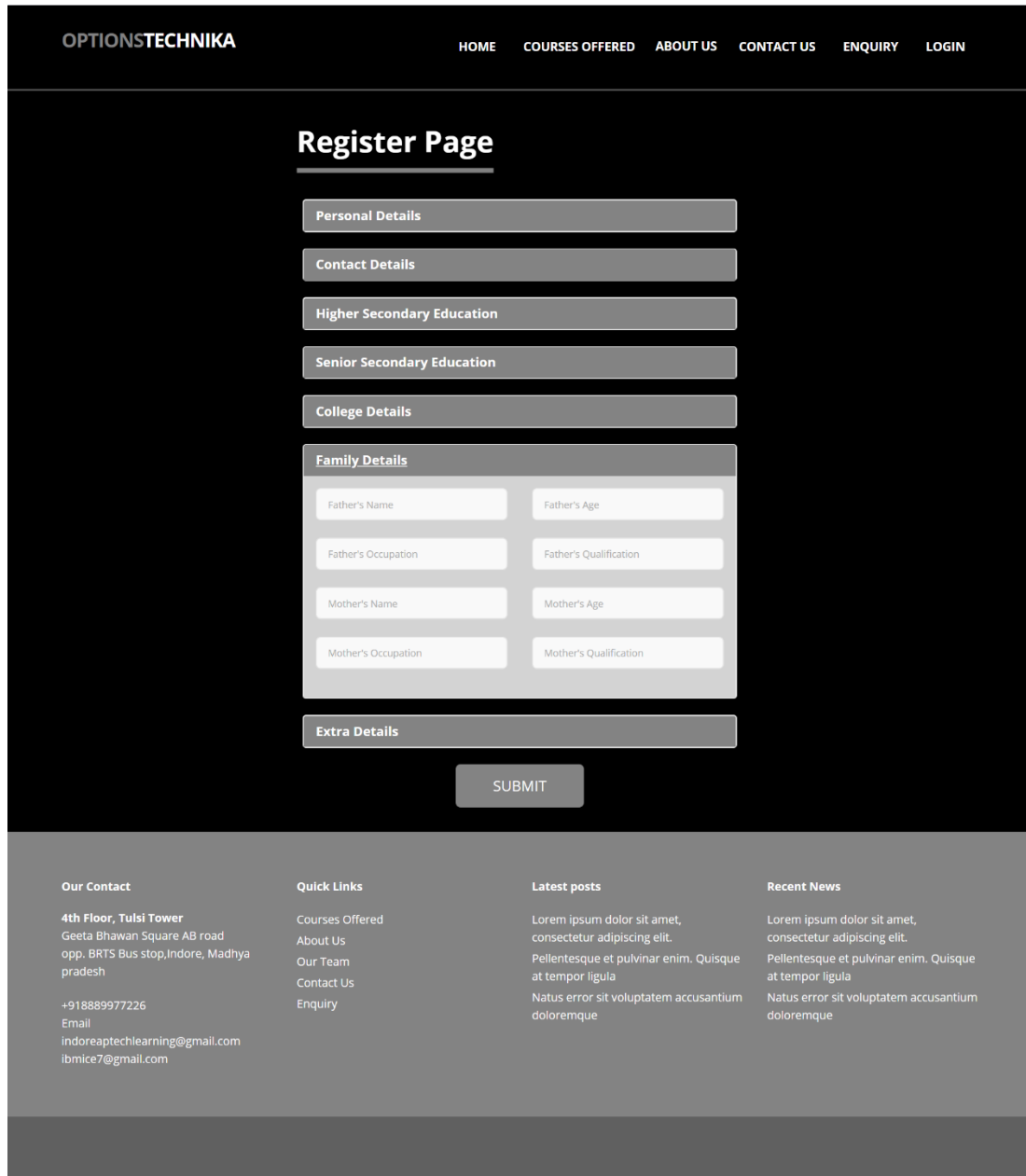
## Quick Links

## Latest posts

## Recent News

29

**Registration:** The new users before accessing their portal have to get their registration done so as to get enrolled to the course. The details put in the registration page by the student will be stored in the database which can be used in the future as and when needed.



The registration page features a dark blue header with the site name 'OPTIONSTECHNIKA' and a navigation menu including 'HOME', 'COURSES OFFERED', 'ABOUT US', 'CONTACT US', 'ENQUIRY', and 'LOGIN'. The main content area is titled 'Register Page' and contains a series of stacked form sections: 'Personal Details', 'Contact Details', 'Higher Secondary Education', 'Senior Secondary Education', 'College Details', 'Family Details', and 'Extra Details'. The 'Family Details' section is expanded, showing input fields for 'Father's Name', 'Father's Age', 'Father's Occupation', 'Father's Qualification', 'Mother's Name', 'Mother's Age', 'Mother's Occupation', and 'Mother's Qualification'. A 'SUBMIT' button is located at the bottom of the form. The footer is divided into four columns: 'Our Contact' (address, phone, email), 'Quick Links' (Courses Offered, About Us, Our Team, Contact Us, Enquiry), 'Latest posts' (three placeholder text entries), and 'Recent News' (two placeholder text entries).

**OPTIONSTECHNIKA**    HOME    COURSES OFFERED    ABOUT US    CONTACT US    ENQUIRY    LOGIN

## Register Page

**Personal Details**

**Contact Details**

**Higher Secondary Education**

**Senior Secondary Education**

**College Details**

**Family Details**

Father's Name    Father's Age

Father's Occupation    Father's Qualification

Mother's Name    Mother's Age

Mother's Occupation    Mother's Qualification

**Extra Details**

**SUBMIT**

**Our Contact**  
4th Floor, Tulsi Tower  
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pradesh  
+918889977226  
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**Recent News**  
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doloremque

Figure 4.16 Registration Page

**Log in:** All the enrolled users can access their personal portal by logging in to this website by entering their respective username and password.

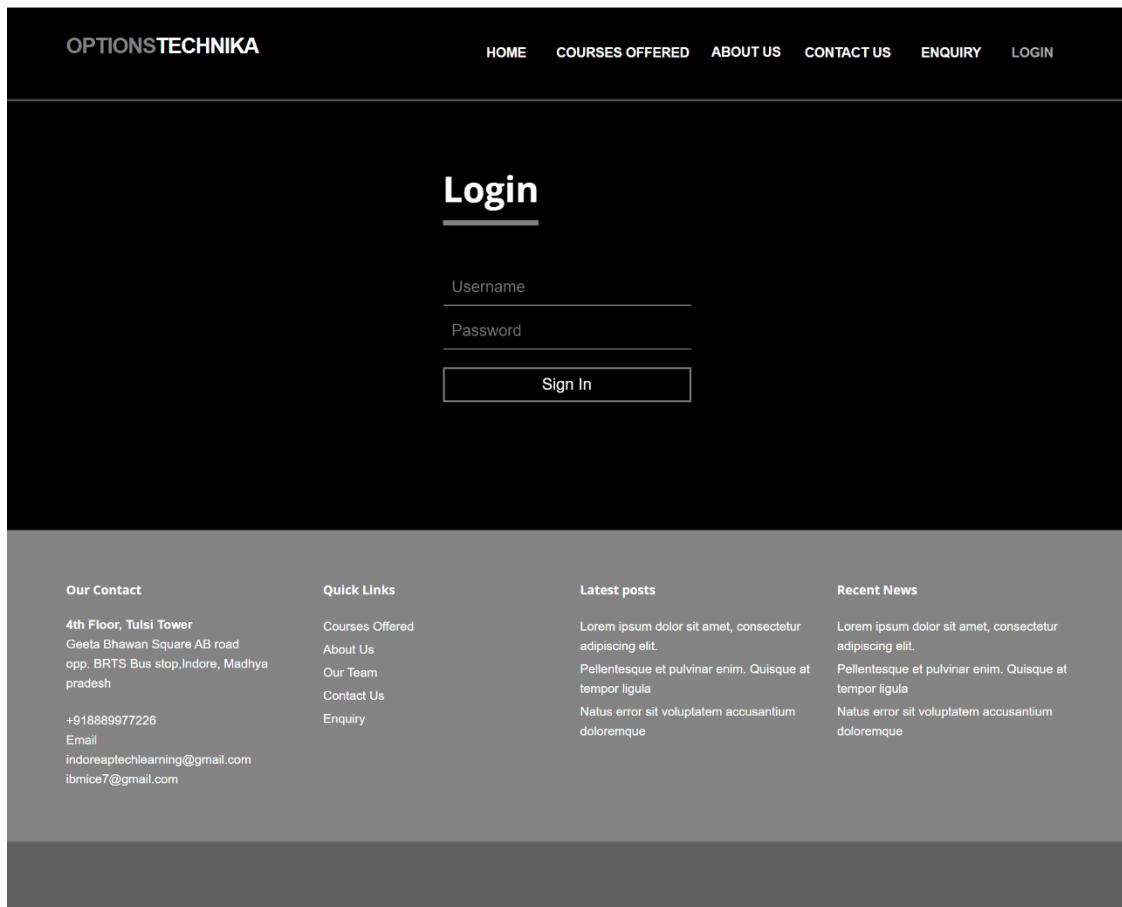
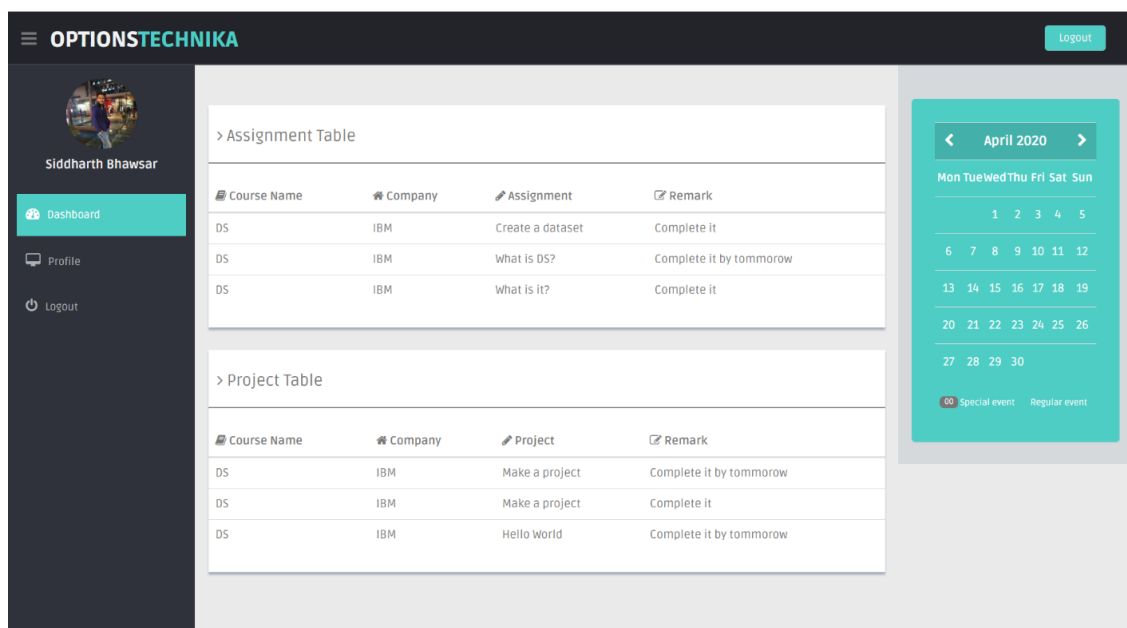


Figure 4.17 Login Page

**Student Portal:** The students, once enrolled, can access their profile, check the assignments and projects provided to them by the respective faculty.



Course Name	Company	Assignment	Remark
DS	IBM	Create a dataset	Complete it
DS	IBM	What is DS?	Complete it by tomorrow
DS	IBM	What is it?	Complete it

Course Name	Company	Project	Remark
DS	IBM	Make a project	Complete it by tomorrow
DS	IBM	Make a project	Complete it
DS	IBM	Hello World	Complete it by tomorrow

Figure 4.18 Student Dashboard



**Counsellor Portal:** Using the portal, the counsellor can have a status of the students' record and know the progress of each student towards enrolment.

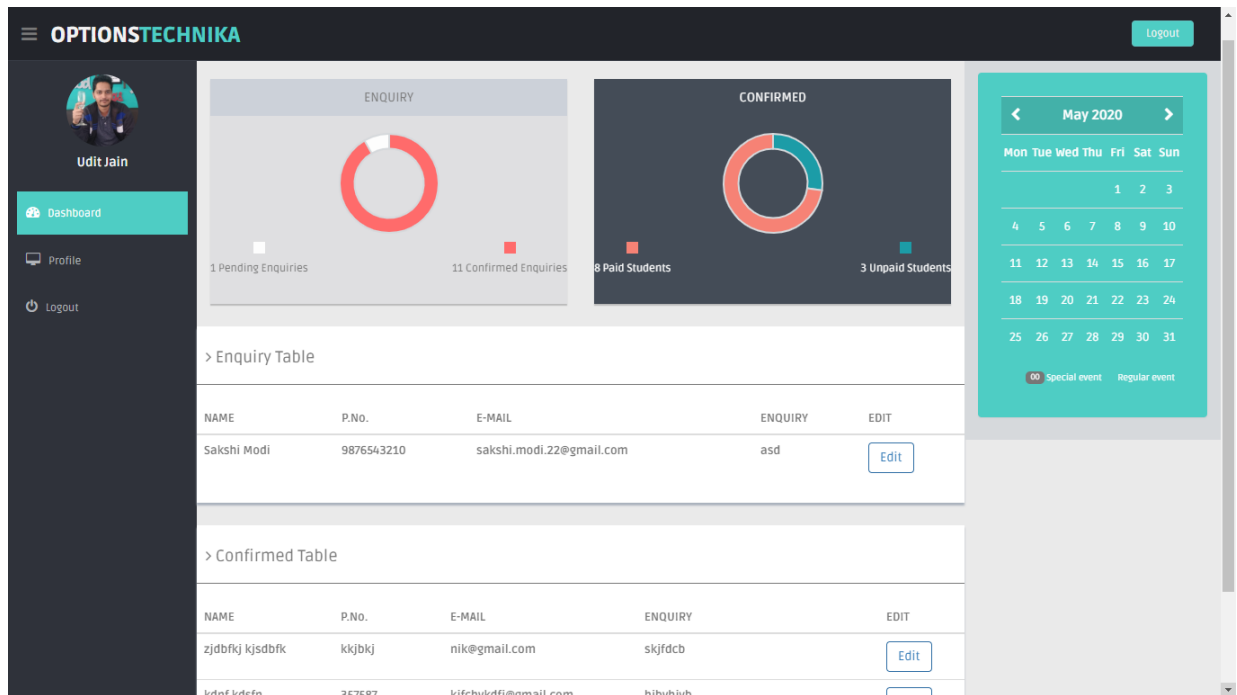


Figure 4.19 Counsellor Dashboard

The dashboard shows a detailed profile for Sakshi Modi. The form includes fields for Name, Email, Mobile No., Enquiry, Status, Position, and three conversation logs. There are also dropdown menus for Status Update (Paid) and Position Update (Stu\_IBM), followed by text input fields for Conversation 1, 2, and 3 updates. An Update button is at the bottom.


Name: Sakshi Modi  
 Email: sakshi.modi.22@gmail.com  
 Mobile No.: 9876543210  
 Enquiry: asd  
 Status: Enquiry  
 Position: NA  
 Conversation 1: yes  
 Conversation 2: done  
 Conversation 3:  
 Status Update:   
 Position Update:   
 Conversation 1 Update:   
 Conversation 2 Update:   
 Conversation 3 Update:   
[Update](#)

Figure 4.20 Counsellor Dashboard

**Faculty Portal:** All the faculties associated with the company have been provided with their dashboard wherein they can post assignments and projects to all the students in their batch in one go.

OPTIONSTECHNIKA

Logout



Yash Jain

Dashboard

Profile

Logout

POST ASSIGNMENTS

Select Course

Write company here..

Write Assignment here..

Write Remark here..

Post

POST PROJECTS

Select Course

Write company here..

Write Project details here..

Write Remark here..

Post

> Assignment Table

Course Name	Company	Assignment	Remark
Python	Aptech	What is Python?	Complete it by tomorrow
DS	Aptech	What is DS?	Complete it by tomorrow
UI/UX	IBM	What is it?	abc
ML	IBM	What is ML?	Complete it by tomorrow
ML	Aptech	What is ML?	Complete it by tomorrow
IOT	Aptech	What is IOT?	Complete it by tomorrow
DS	IBM	What is DS?	Complete it by tomorrow
DS	IBM	What is it?	Complete it

> Project Table

Course Name	Company	Project	Remark
DS	IBM	Make a project	Complete it by tomorrow
Python	IBM	Make a project	abc
DS	Aptech	Make a dataset	Complete it
DS	Aptech	Make a dataset	Complete it
DS	Aptech	Make a dataset	Complete it
IOT	Aptech	Read sensor	by tmmrw
DS	IBM	Make a project	Complete it
DS	IBM	Hello world	Complete it by tomorrow

May 2020

Mon	Tue	Wed	Thu	Fri	Sat	Sun
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

00 Special event

Regular event

Figure 4.21 Faculty Dashboard

**Profile:** This is common in all the dashboards, once opened, the person can see his activity here.

The screenshot shows a user profile page for 'Udit Jain' on a dashboard titled 'OPTIONSTECHNIKA'. The page has a dark sidebar on the left with a user profile picture and name, and a main content area on the right. The main content area has two tabs: 'DETAILED OVERVIEW' (active) and 'CONTACT DETAILS'. The 'DETAILED OVERVIEW' tab displays a table with personal and SSC details.

Personal Details	
Name :	Udit Jain
Username :	udit1
DOB :	Oct. 9, 1998
Gender :	Male
Address :	jhgfdghikl,mnbv
City :	Indore
State :	Madhya Pradesh
Mobile :	1234567897
Email :	udit@gmail.com

SSC Details	
SSC Name :	ABCD
SSC CGPA :	10
SSC Board :	CBSE
SSC Major :	Maths
SSC Start Date :	May 1, 2020

Figure 4.22 Profile Page

# **Chapter-5**

## **Testing**

A crucial part of any software development lifecycle is testing. This involves carrying out certain procedures and operations to understand the limitations of the software. It is evident that with testing the constraints of the application that particular bugs and errors are picked up and documented through test cases. This will improve the overall standard and quality of the project and enhance the user experience.

## **5.1 Testing Objective**

- Testing is a process of executing a program with the intent of finding an error.
- A good test case is one that has a high probability of finding an undiscovered error.

## **5.2 Testing Scope**

It can be further used for automatically recommending the faculties to the students according to interest of the student in a particular course(s) / subject(s).

## **5.3 Testing Principles**

- All tests should be traceable to customer requirements.
- Tests should be planned long before testing begins.
- Testing should begin “in the small” and progress toward testing “in the large”.

## **5.4 Testing Methods Used**

### **5.4.1 Unit Testing**

Unit testing focuses verification efforts on the smallest unit of software design of module. This is also known as “Module Testing”. Acceptance of package is used for computerization of module. Machine Utilization was prepared and approved by the project leader. In this testing step, each module is found to be working satisfactory as regards to the expected output from the module. The suggested changes were incorporated into the system. Here each module in the Machine Utilization has been tested.

‘Options Technika’ is also divided in 3 main modules/parts, which are:

1. Counsellor Module    2. Student Module    3. Faculty Module

These 3 modules are tested separately.

### **5.4.2 Validation Testing**

At the culmination of integration testing, software is completely assembled as a package; interfacing errors have been uncovered and corrected, and a final series of software tests - Validation testing - may begin.

# **Chapter 6**

## **Future Scope**

## 6.1 Future Scope

In a nutshell, it can be summarized that the future scope of the project circles around maintaining information regarding:

- We can give more advance website for Options Technika including AI and ML.
- Integrate multiple load balancers to distribute the loads of the system.
- Create the master and slave database structure to reduce the overload of the database queries.
- Implement the backup mechanism for taking backup of codebase and database on regular basis on different servers.
- We can create a separate module for accounting department.

The above mentioned points are the enhancements which can be done to increase the applicability and usage of this project. Here we can maintain the records of Students , Interns , Faculty and Counsellors . Enhancements can be done to maintain all the student , faculty and counsellor module .Through the usage of AI and ML it can be made possible through online test to give proper individual attention to students and will also help the faculty to know the area in which the students are lacking and counsellors can get to know the performance graph of each faculty and can compare with other faculty if needed . So that faculties can be trained accordingly.



## **Chapter-7**

### **Learning After Training**

## **7.1 LEARNING AFTER TRAINING**

- I also learned Pygame Module which is used to create stunning game .
- And also learned Tkinter Module which is utilized to create Windows Application which can likewise be integrated with MySQL.
- I have also learned many concepts of Django and Python which are essential for website development.

# **Chapter 8**

## **Result & Conclusion**

## 8.1 Result & Conclusion

To conclude, the aim was to set to get the hands on digital work and leaving out the paper work is achieved. The whole website is an interactive platform that consist of all the details about the company, and the collaborative companies, with separate dashboards present for counsellor, faculty and student respectively. When someone fills the enquiry form these details get reflected in the counsellor portal, where counsellor can have a check of how many enquiries were done and how many were confirmed. It makes the details to be handled easily and also can have a record. After the follow-up the details are filled by the counsellor and the person gets enrolled in what-so-ever brand and field he wants to. Then the interaction between the faculty and students is done by portal as the faculty post the assignments and projects with remarks and the student gets an update of the work that needs to be done. Overall, this website development was made for the enhancement and more effective productivity in the company and through this project I came across many technologies and their working which in all let to my knowledge enhancement. This project provided me a great opportunity to get to know about how things work in a company and the ability to deal with client and how to fulfill the client's expectations.

## **Chapter-9**

# **BIBLIOGRAPHY**

## 8.1 BIBLIOGRAPHY

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- [www.geekforgeeks.com](http://www.geekforgeeks.com)
- [www.tutorialspoint.com](http://www.tutorialspoint.com)
- [www.google.com](http://www.google.com)
- [www.javaacademy.com](http://www.javaacademy.com)
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