SRS REPORT

ON

"Faculty Portfolio Management"

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Certificate

This is to certify that the SRS report entitled

"**Faculty Portfolio Management**"

which is being submitted by

SIA01 Namya Agrawal
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have partially completed the Project entitled " **Faculty Portfolio Management**",
under my guidance in partial fulfillment of the requirement for the Project Based Learning
in S.E. Information Technology of International Institute of Information Technology,
Hinjewadi, by Savitribai Phule Pune University for the academic year 2022 – 2023.

Dr. Jyoti Surve   Dr. Jyoti Surve

   Guide   Head of the Department

Internal Examiner:-   Date:

External Examiner:-

Acknowledgement

With immense pleasure, we are presenting this project report on "**Faculty Portfolio Management**" as a part of the Project Based Learning in S.E. Information Technology at INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY, HINJEWADI, PUNE.

It gives us the privilege to complete this report under the valuable mentorship of **Dr.Jyoti Surve**. Her guidance, cooperation, and encouragement have made headway in the project.

We are also extremely grateful to **Dr. Jyoti Surve** (H.O.D of Information Technology) and **Dr. Vaishali Patil**, Principal, Information Technology of Information Technology for providing all facilities and help for the smooth progress of the report work. We would also like to thank **Mr. Nitin Gulhane** and all the Staff Members of the Information Technology Department, Management, friends, and our family members, who have directly or indirectly guided and helped us with the preparation of this report and gave us unending support right from the stage the idea was conceived.

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Abstract

A portfolio is a compilation of academic and professional materials that exemplifies your beliefs, skills, qualifications, education, training, and experiences. It provides insight into your personality and work ethic.

Choosing the most relevant academic and professional experiences and putting them in an easily understood format will show an employer proof of your organizational, communication, and tangible career-related skills.

Chapter 1

Introduction to Project Topic

1.1 Overview

Project Overview

        The purpose of this document is to present a detailed description of the Faculty Portfolio Management System. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli. This document is intended for both the stakeholders and the developers of the system and will be proposed to the Regional Historical Society for its approval.

1.2 Brief Description

Techniques and Algorithms:

        There are various algorithms and techniques employed in the method of portfolio management and information extraction . Python framework flask is used for this.

1.3 Problem Definition

        As we see in several colleges and many offices, individuals need to store their information in a place where it should be easily available.. We decided to make a project in which we can just upload these information in one place. Then we convert this information into a pdf to get all the information at one place.

1.4 Applying Software Engineering Approach

Task 1: Business Problem:

        Several colleges need to store faculty information or student information properly with their all things at one place. So they need a system which will do this .It is possible only through Portfolios.

Task 2 : Planning:

The planning stage includes trying the software and hardware necessities. It conjointly includes plotting of the time chart that includes how much time we are going to spend on data preprocessing, model evaluation, training, etc. The sources for the datasets conjointly have to be finalized.

Task 3: Design:

Conceptualizing the product is made throughout the stage of SDLC. Design is developed according to the specifications written during the first two stages of software development. Designers, like any other architects, build the whole structure of the project and provide the ultimate prototype that may be used for the successive steps of software development.

Task 4:Construction:

With the assistance of chosen software we've to develop a website which can handle the faculty information properly. Then convert these Information in pdf form..

Task 5: Deployment:

To make our model accessible to HOD and Faculty we must have to deploy it on the web server. Before deployment, we have to make sure that our model of portfolio management and pdf extraction is functioning properly within the worst conditions.

Chapter 2

Literature Survey

A portfolio is a place where you keep examples of work that you are proudest of.

Many authors in different countries have given their point of views related to portfolios in their **Research paper.**

Many authors studied the formation of an optimization portfolio.

We find papers on google through which we first learn what exactly is needed to develop a portfolio.That helped us to get an idea about developing a portfolio system.

With the help of those research papers we have been able to analyze our requirements for portfolio management.

They suggested books or websites that we followed.

Chapter 3

Software Requirements Specification

3.1 Introduction

Software requirements are expressed in a software requirement document. The software requirement specification (SRS) is the official statement of what is required of the system developers. This requirement document includes the requirement definition and also the requirement specification. The software requirement document isn't the designed document.

3.1.1 Purpose

The goal of this document is to outline the features, requirements, and interface of the Faculty Portfolio Management.. It'll clarify the circumstances of the intended project.. It will enable faculty to upload their information the proper way.

3.1.2 Intended Audience and Reading Suggestion

This document is meant to be helpful for all faculty members. They can be used by visiting the website and uploading their research papers..

3.1.3 Project Scope

The scope of the project includes the design and implementation of a convolution network model. The model is split into five phases. The first phase of the project consisted of all the requirement gathering of our project, in which we gathered all the research work available based on our project. Then within the second phase, we gathered the research papers published by faculties..

Then within the third phase, we will take some new papers as input and then test our model. Based on the available output we will fine-tune our model to increase its accuracy. In the fourth phase, we will test the model again by creating a proper UI for it. This phase will also include testing of the systems in units and as a whole system. In the fifth phase, our model will be made available to the faculty in a proper GUI format so that the intended user can use it.

3.1.4 Design and Implementation Constraints

- Users should be able to access the system over the internet and upload information on it.

- The system will be hosted on a server and will be available to users 24*7.

- The system should keep redundant storage of pdf in the database .

- Users should be able to get results in a minimal amount of time.

3.1.5 Assumptions and Dependencies

- This system assumes that the intended user has information to upload.

- The database will contain a huge number of pdfs .

- The system will use the following third-party apps - Python, VScode, Database,Service, etc

3.2 System Feature

This system entails two parts which compromise the system in two parts: frontend and backend. While the frontend of the system consists of a graphical user interface which the user will interact with, the backend connects it with an pdf database and fetch results which will be passed on to the frontend of the system. Further details are mentioned herewith.

3.2.1 System Feature 1

Frontend -

1. Users should be able to interact with GUI over the internet.
2. Users should be able to upload the pdf.
3. Users should be able to see results.
4. Users should be able to view the converted pdf as output.

3.2.2 System Feature 2

Backend-

1. The system should be able to fetch the pdf uploaded by the user.
2. The system has to preprocess the pdf and stage it for evaluation.
3. Model should be able to process the pdf ..
4. System should be able to send results to frontend to display.

3.3 External Interface Requirements

3.3.1 User Interfaces

Users will use a website that is made up of HTML and CSS and then get the desired output in the form of the pdf character by character. The user interface for the software shall be compatible with any browser such as Google Chrome, Mozilla or Microsoft Edge by which the user can access the system.

3.3.2 Hardware Interfaces

- Processor: Intel Pentium 4 or higher
- RAM: Minimum of 512MB or higher
- Hard-drive space: 60 MB or higher
- Internet Connection: 4 Mbps or higher
- Controller: Keyboard and a Mouse

3.3.3 Software Interfaces

- Operating System: Windows, Mac, Linux.
- Software tool: Flask
- Web Technologies: Html, ,CSS
- Web Browser: Mozilla Firefox or Google Chrome

3.4 Non-Functional Requirements:

3.4.1 Performance Requirements:

To assess the performance of a system the following are the parameters:

1. Response Time

2. Platform - No OS bound.

3. CPU: Core i5 10gen or Higher GPU: GeForce GTX 980 or higher RAM: 8GB or Higher

3.4.2 Safety and Security Requirements:

Currently our system does all the processing and temporary data storage on the local device.

- Confidentiality: Our System preserves access control and disclosure restrictions on information. Guarantee that no one will break the rules of personal privacy and proprietary information.
- Integrity: Our system avoids improper (unauthorized) information modification or destruction
- Availability: All of the private information stays right within the local application, avoiding any foreign interventions.

3.4.3 Software Quality Attributes

- **Availability:** The system will be available at any time and at any location in the presence of internet connectivity.

- **Portability:** The system is portable as it can be used on any device, anytime, anywhere.

- **Reliability:** The system will be real-time, and dynamic, hence making it reliable.

- **Flexibility:** The system should be flexible to handle large amounts of data and easy to use.

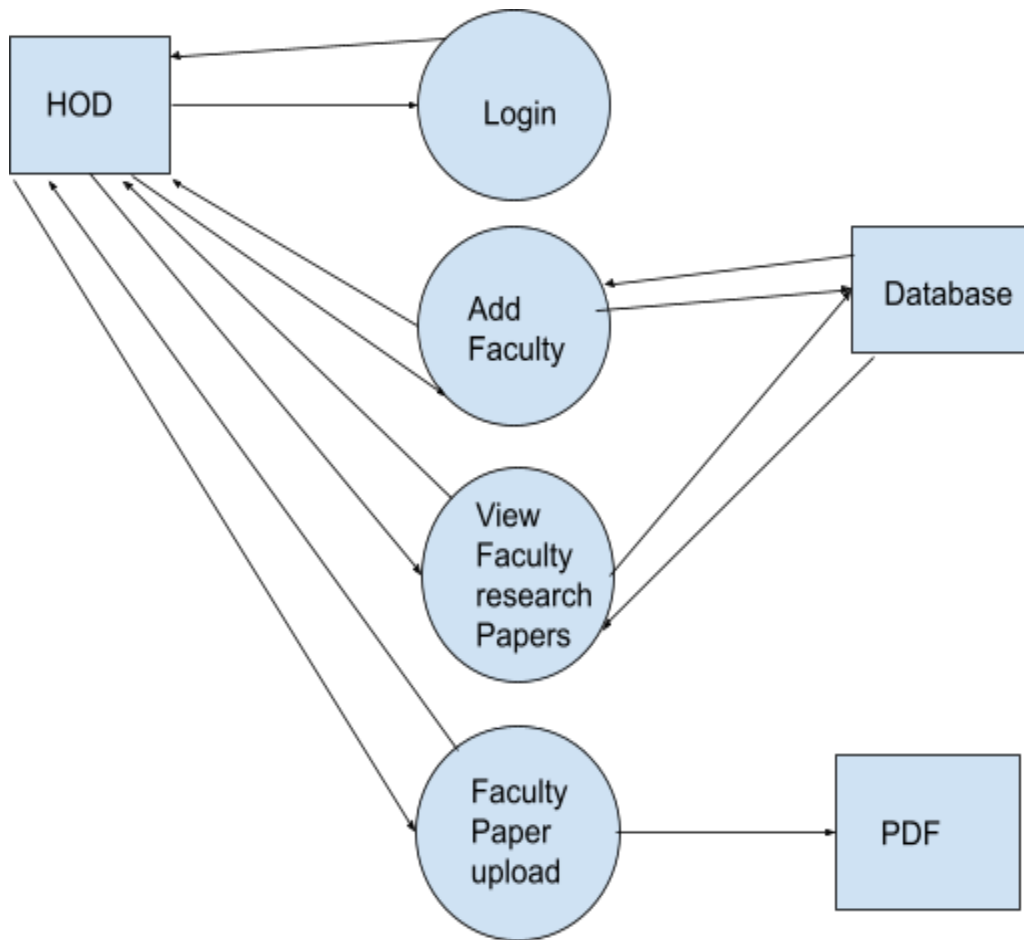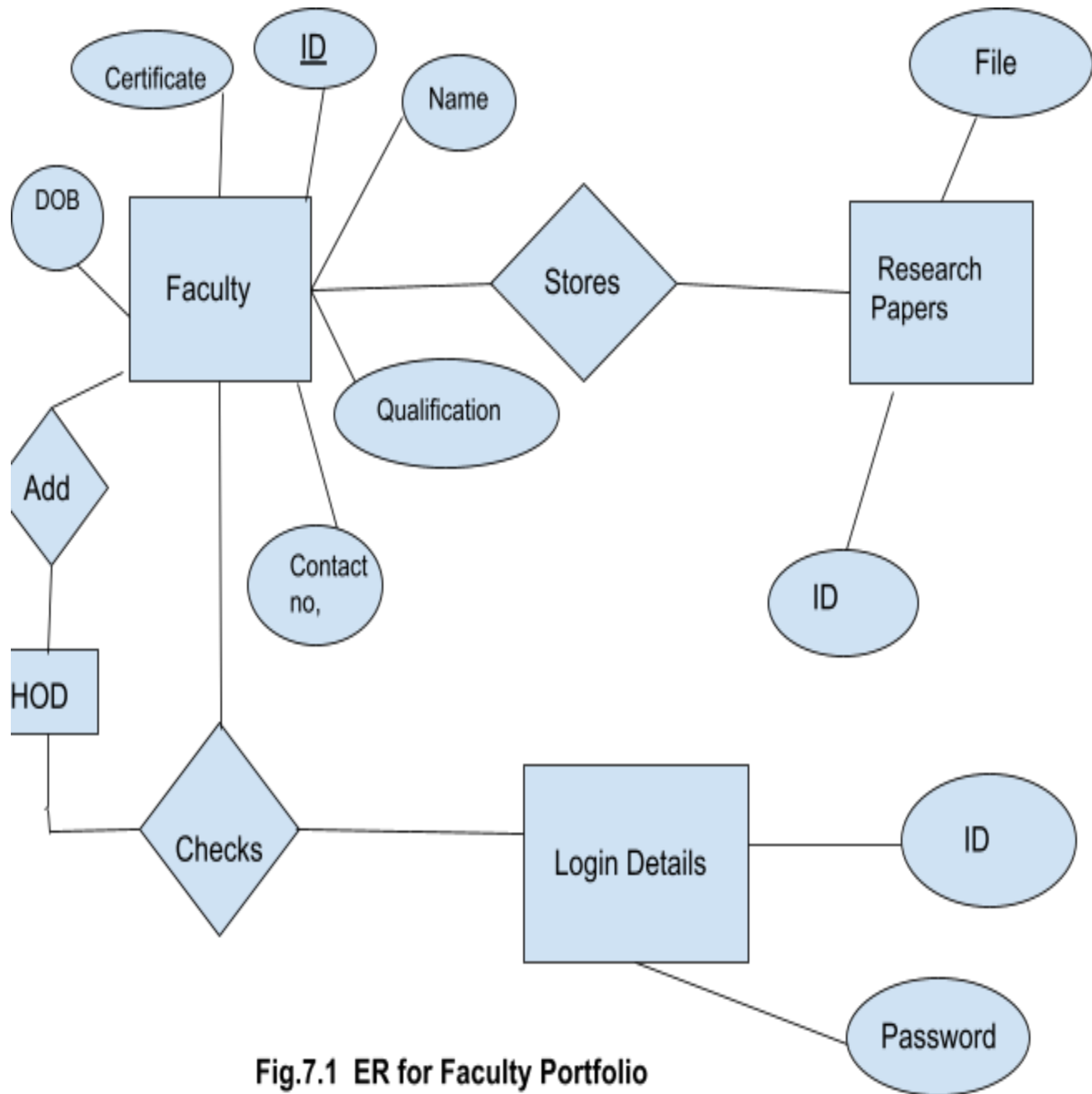## 3.5 Analysis Model
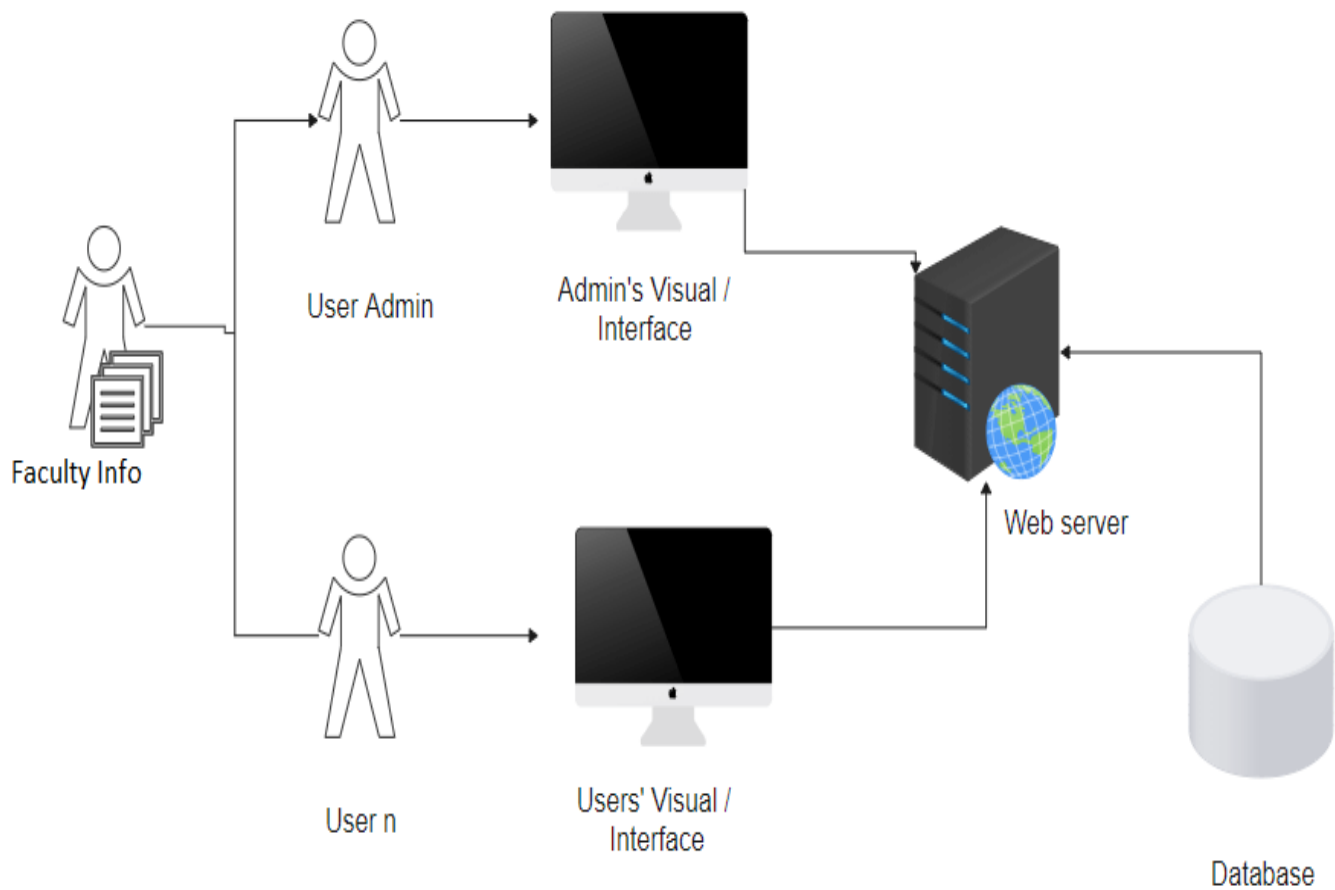
3.5.1 Data Flow Diagram

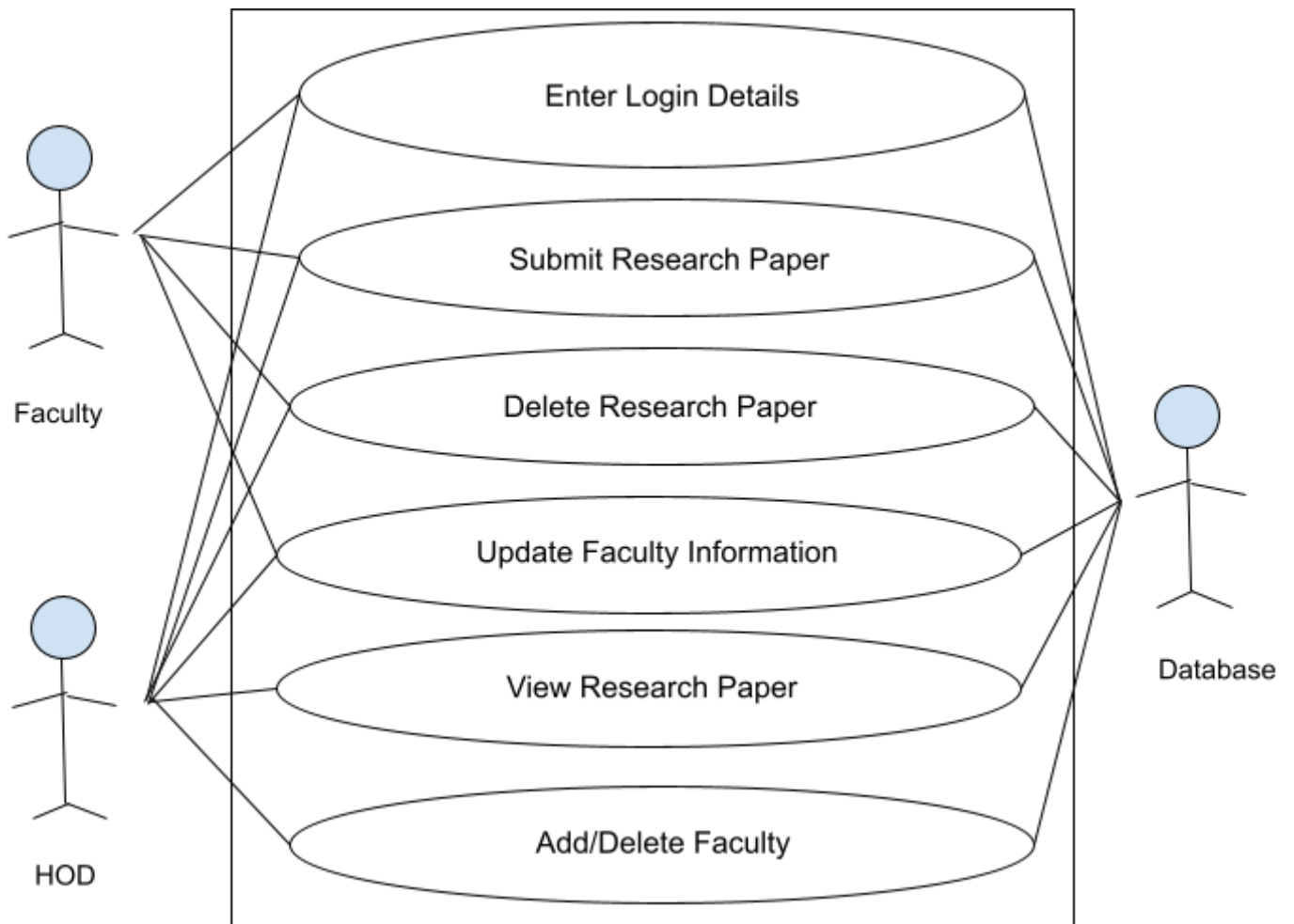**Fig.Data Flow Diagram**

3.5.2 Entity Relationship Diagram

Fig.7.1 ER for Faculty Portfolio

Chapter 4

System Design

4.1 System Architecture

User Admin — Admin's Visual / Interface

Faculty Info

User n — Users' Visual / Interface

Web server

Database

4.2 UML Diagrams

4.2.1 Use Case Diagram

Chapter 5

Technical Specification

5.1 Technology Details used in the project:

- **Planning and Innovation**

  Innovation:
  - ➔ IEEE Xplore

  Software analysis, architecture and design:
  - ➔ Flow charts, UML diagrams

- **Implementation**

  Programming languages:
  - ➔ Python, MySQL

  Technologies, libraries, and frameworks:
  - ➔ Flask

  Platform:
  - ➔ SQLite

  - Python: Python is a general purpose programming language. It emphasizes on ease of use and quick prototyping.

  - MySQL: MySQL is an open-source relational database management system. It is a structured query language.

  - Flask: It is a web application framework written in python. Essentially, this is a way for web servers to pass requests to web applications or frameworks.

  - SQLite:SQLite is one of the most popular and easy-to-use relational database systems. It possesses many features over other relational databases.

Chapter 6

Conclusion

     Nowadays, many large institutions such as colleges need to manage various research papers submitted by the faculties. It's a very tedious job to search for research papers and store details.

     Faculty Portfolio is very useful software. This system will allow us to accept details and research papers from faculties. The data gets stored in the database. It can be accessed by the Head Of Department or Senior Faculties. Also searching is possible by entering details of the faculty or the research paper , it is done by searching for the matching results in the database provided.Thus, it is important when the organization is large and large amounts of records need to be stored and displayed.

References

- IEEE. *IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications.* IEEE Computer Society, 1998.