

# Acknowledgment

We wish to acknowledge with gratitude, the insightful guidance given by our module leader Dr. Rasika Ranaweerage. You have been our guidance mentor. We have been extremely lucky to have a lecturer who cared so much about student work, and who responded to our questions so promptly regarding. Not only module contents whenever he taught many extra trends, but technologies regarding our module since the second year and it also increase our knowledge.

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# Project identification

## Introduction

University to Industry is a platform that allows the industry personals to directly recruit university students. The platform allows a registered university student to maintain his profile and curriculum vitae which are made visible for the registered industry personals. The industry professionals can find out the students with qualifications and skills that they are looking for using the platform.

This project is mainly about the development of the API for this system. The REST API has been developed for the CRUD operations of the database that is being used for this system. The system is also consisted of a web application as the front end that uses the API to communicate with the database.

## Project Goals

The main goal of this project is to develop a RESTful API web application and complete our project according to the given assignment criteria.

Learn something new and improve our technical skills and knowledge were our second goal as a team.

## Project Objectives

* Carefully analyses the scenario and deliver a good effective solution.
* Figure out new developing tools and technologies which can fulfill the project requirements.
* Design and development of a functional web application and a mobile application.
* The source code should have been tested properly by using test data.
* The design clearly illustrated within the website documentation and clearly evident in the architecture.
* Proper project documentation.

# Planning

Here, we identified and defined the purpose and project plan for the system development. There is the main task we have completed in this stage.

That is Requirement Gathering. Requirements gathering is an essential part of any project and project management. Understanding fully what a project will deliver is critical to its success.

Requirement gathering was mainly done by analyzing project criteria and observing the given scenario.

# Analyze

## Functionalities

From the IPT program manager(Admin) aspect,

* IPT program manager can access the websites admi panel by using username and password.
* IPT program manager can see details about any registered member.
* According to the given details IPT program manager can approve or reject any membership.
* IPT program manager can modify their account details and logout from the account.

From the student aspect,

* Any student can sign up for the website by giving required details.
* They can sign in using username and password.
* Student can edit their profile details and share their qualifications.

From the IT expert aspect,

* Any IT expert can sign up for the website by giving required details.
* They can sign in using username and password.
* Approved experts can filter by the category to find appropriate students and communicate with them.
* They can also can filter by the category and see the previous selected students and their contact details.

## Requirement Analysis

### Functional Requirement

1. Students can register themselves with details including a student ID, name, profession, email, affiliated university, password, etc.
2. Experts can register themselves with details include national ID, name, profession, email, affiliated company, password, etc.
3. Students or experts can update their profiles.
4. Anyone who logged in can access member details when the id is known.
5. An expert should be able to filter the students by category.
6. The IPT manager can remove invalid members, students or experts

### Non-Functional Requirements

1) Availability- The system is available for accessing anytime with the maximum number of users

2) Reliability- The system is error-free and work according to the specifications mentioned.

3) Security- A third party cannot access the system without any authorization from the administration.

4) Accuracy- The system depends on real time information and the system provides real time updated data to the user. If any modification happened that will be updated in the system instantly.

5) Maintainability- The system can be easily maintained.

# Designing

## Architecture Diagram

A screenshot of a cell phone

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Figure -Architecture Diagram

## Use Case Diagram

A picture containing text, map

Description automatically generated

Figure - Use Case Diagram

## Class Diagram

## Database Design

### Extended Entity Relationship Diagram

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Figure - EER

### Relational Mapping

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Figure - Relational Mapping

### Normalized Tables

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Figure - Normalized Tables

### Database Diagram

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Figure - Database Diagram

# Implementation

## Technology Used

To develop this project basically we used following technologies.

For the backend implementation

* NodeJS

JavaScript runtime environment – lets you implement your application back-end in JavaScript

* ExpressJS

Back-end web application framework running on top of Node.js

* MySQL

For the frontend implementation

* Vue Framework

## Why did We use it?

Both MongoDB and MySQL were considered and MySQL was used as it was asked specifically in the coursework documentation.

## API

### Overview

### Model

### Controller

### Routes

## How We Secure API

# Testing

# API Documentation

<https://documenter.getpostman.com/view/8511782/Szf81SyM>

A pdf of API documentation is attached with this project folder for more convenience.

# Instruction to Run

# Contribution

# LinkedIn Certificates

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# Turnitin Report