# Acknowledgment

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# Project identification

## Introduction

Developing software services for Industrial Preparation Program to enhance the

Industry preparation program dubbed “IPT” is an initiative that helps a student for a smooth and easy transition to the industrial life after the studies at NSBM. It is expected to provide firsthand experience on the industrial life and knowledge of how to thrive in the industry, through knowledge of experienced IT professionals. NSBM is now planning to set up a web site for IPT to reflect the experience. Students can share their qualifications and the experts can see those and presumably recruit them

According to the scenario, we developed a web site and mobile application by using RESTFUL API. Node JS, Express JS, and MySQL were mainly used to develop this RESTful API. REACT used to develop frontend and NODE JS and Express JS used to develop the backend of the project.

## 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 student aspect,

* Students can signup for the website by giving the required details.
* They can sign in using username and password.
* Student can edit their profile info.
* Approved students can share their qualifications.

From IT expert aspect,

* Any IT expert can sign up as an expert by giving the 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.

From IPT program manager aspect,

* IPT program manager can access the website by using the username and password.
* They can see details about students.
* He/she can approve or reject any member.

## 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

## Use Case Diagram

## Class Diagram

## Database Design

### Extended Entity Relationship Diagram

### Relational Mapping

### Normalization

# Implementation

## Technology Used

To develop this project basically we used following technologies.

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

## Why did We use it?

## API

## How We Secure API

# Testing

# API Documentation

# Contribution