North South University

Department of Electrical & Computer Engineering (ECE)

Project Report

Project Title: Ticket Booking System (Web Based)

Course Title: Junior Design Course

Course Code: CSE 299

Submitted to: Ahmed Fahmin (AFn1)

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Project Name: Ticket Booking System [Web based]

Introduction:

Ticket booking system is a software product where, we are building this web-based software from scratch, so that it can cover every aspect of its domain. We'll build this system, that is easily maintainable, testable and extendable. And after developing this project we will host it on cloud. So that it can used as globally around the world. We can publish this product on Cloud, AWS (Amazon web service) for global business.

Features: Through this system:

-Client will View full booked ticket list.
-Client will Delete booked ticket list as user needed.
-Client will Update booked ticket list as user needed.
-Client will Edit booked ticket list as user needed.

Customer Benefits: By using this system:

-Client will run his business smoothly & profitably.
-Client will update his system very smoothly as his upcoming plan
-Client will update integrated this system with many others system.
-Client will introduce new feature easily in this existing system.
-Client will host this product in Cloud easily

Core-Technology:

Front-end:

- We use Bootstrap to visualize Web applications functionality
- Actually, Bootstrap is a combination of HTML, CSS & JavaScript
- Here we use Razor Syntax with bootstrap.
- Razor Syntax is used to work with Bootstrap to visualize Web's Button, Paragraph, Form.

Back-end:

- Programming Language: C#
- Framework: ASP Dot net Core MVC
- Database: SQL Server
- Object Relational Mapper: Entity Framework + ADO.net
- Development Communication: Slack
- Version Controlling: Git
- Collaboratively Software development Environment: GitHub

Project Plan:

Week 1-2: [11/11/2021 - 24/10/2021]
- Project Requirement Analysis [Software Booking System]

Week 3: [25/10/2021 - 31/10/2021]
- Project proposal ready submission
- Project report ready submission

Week 4-6: [Learning phase] [01/11/2021 - 21/11/2021]
- Software Setup (Visual studio-2029, Git, Tortoise git, Putty, SQL Server)
- ASP dot net Web project Configuration
- Study on C# Basic Syntax, & Dot net Framework & Git & GitHub

Week 7: [22/11/2021 - 28/11/2021]
- MVC configuration (Startup.cs)
- Error logger (Serilog Setup- Program.cs) configuration
- Dependency Injection (Autofac- Startup.cs) configuration

Week 8: [29/11/2021 - 05/12/2021]
- Bootstrap Admin panel Integration with Razor Syntax & Menu bar
- Entity Framework Introduce & Db Migration to build connection in database
- Necessary Nuget package Integration & Create Tables & It's Backup

Week 9: [06/12/2021 - 12/12/2021]
- MVC Achiever (Three Tiar-Model, View, Controller) development
- Separate Three Layer [UI, Business Logic, Data Access] & Organize Project
- Introduce Business Object, Entities, DbContext
- Dependency Injection (Autofac- Startup.cs) configuration

Week 10: [13/12/2021 - 19/12/2021]
- Introduce Repositories by using Repository Design Pattern
- Introduce UnitOfWork by using UnitOfWork Design Pattern
- Introduce Modules: Context, Service Layer, Entities, Business Object, Ticket booking Module
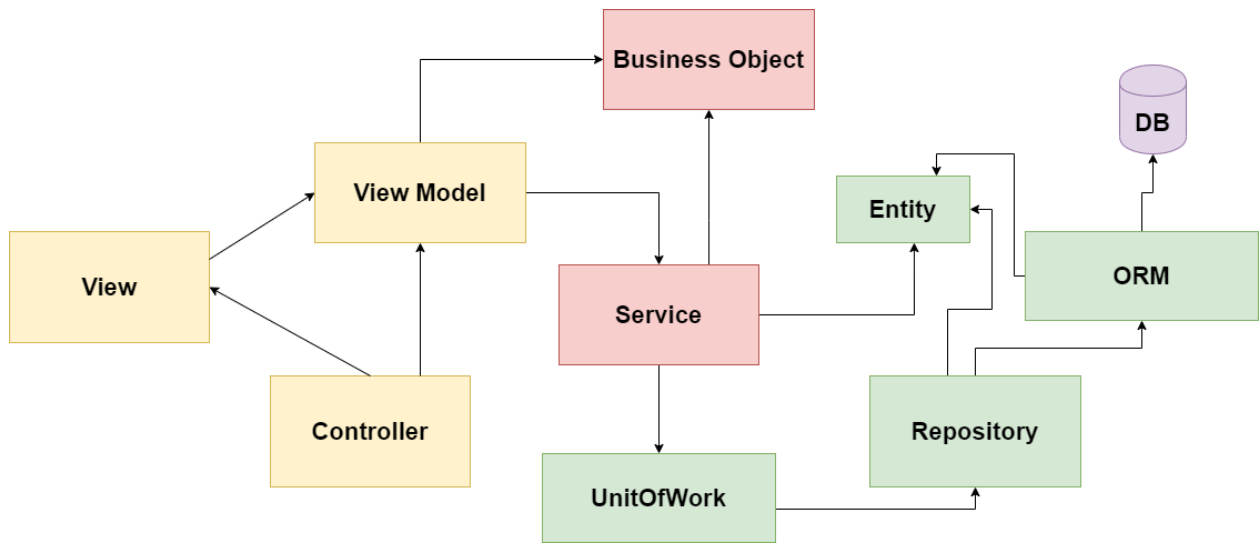
Week 11: [20/12/2021 - 26/12/2021]
- New feature added like Ticket Form- Theme Integration
- New feature Ticket Creating Button & It's functionality with MVC & Database
- Adding Searching, Sorting & Paging functionality in Database side
- New feature Ticket Viewing Button & It's functionality with MVC & Database

Week 12: [27/12/2021 - 02/01/2022]
- New feature Ticket Edit Button & It's functionality with MVC & Database
- New feature Ticket Delete Button & It's functionality with MVC & Database
- Add Some form validation & Debugging
- Finally, Product Release

Full System High Level Architecture:

Conclusion:

Though we are building a client requirement-based software system, but here our main goal is to develop a real-world software system to learn new technology for our upcoming job life. And that's why we will not bombard our project by just adding features name in our project plan. And our biggest goal- we'll continue to develop this project as our pet project. And use all the software engineering method on this project for learning and add this project in our portfolio. And if possible, we'll release this software as a product too.