**.NET 101 ASSESSMENT**

**Overview Project**

This API project is for managing events. It allows user to retrieve event data and manage event details. Event details for this API consist of name, category, date, location and capacity. This API might help user in order to organized the list of events they have. An event can have few customers registered at the same time. User can filter the event by month, where user can list out how many events they have for the selected month. The Event API project serves as a bridge between client applications and event/customer data. There are four main functionalities in this project which are get, post, put and delete. For get method, user can retrieve the event details by using event id. Post method is same as create new data which allow user to input new details for the event. Put method is for updating the existing data, while delete method will allow user to delete the data.

The key components for this Event API are controller, repository, data transfer object (DTO), entitiy framework core, dependency injection, routing, logging and exception handling. This project contain controller that define the API endpoints and handle various actions related to events. Repository will handle the data access and responsible to querying, creating, updating also deleting the event data. Data Transfer Object help to structure the data and ensure that only relevant information will be sent. Entity framework core allow the LINQ method query between the database. This project use dependency injection to manage and provide instances of repository to controller. Routing is used to route the URL to appropriate the controller method also enabling proper request handling. The project also includes exception handling to provide informative error response in order to help for troubleshooting. Logging is implemented to record the messages within the API.