Architect Design

Logo

Description automatically generated

**Team 11**

Timetable

Ver 1.3

**Historical Version**

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Comments** |
| 1.0 | 03/11/2020 | Nghia Huynh | Create document |
| 1.1 | 02/12/2020 | Nhat Vo | Update document |
| 1.2 | 25/12/2020 | Nghia Huynh | Update document |
| 1.3 | 21/1/2021 | Khang Vu | Update Physical, Dynamic, Static |
|  |  |  |  |

**CONTENTS**

[1. Introduction 3](#_Toc73793305)

[1.1. Purpose 3](#_Toc73793306)

[2. Context Diagram 3](#_Toc73793307)

[3. Physical Perspective 4](#_Toc73793308)

[3.1. Primary Presentation 4](#_Toc73793309)

[4. Dynamic Perspective 6](#_Toc73793310)

[4.1. Dynamic Perspective Level 0 6](#_Toc73793311)

[4.2. Dynamic Perspective Level 1 7](#_Toc73793312)

[4.3. Dynamic Perspective Level 2 9](#_Toc73793313)

[5. Static Perspective 11](#_Toc73793314)

[5.1. Primary Presentation 11](#_Toc73793315)

[6. Database Diagram 13](#_Toc73793316)

[7. Mapping Between Perspective 15](#_Toc73793317)

[7.1. Mapping between Static and Dynamic 15](#_Toc73793318)

[7.2. Mapping between Dynamic and Physical 15](#_Toc73793319)

# Introduction

## Purpose

The objective of this document is describes architecture & design for Timetable website.

# Context Diagram

Diagram

Description automatically generated

# Physical Perspective

## Primary Presentation

Diagram

Description automatically generated with low confidence

Figure 1

|  |  |  |
| --- | --- | --- |
| No. | Element | Description |
| 1 | Internet | As the processing center, connect the client access to the system.  As a connector, a tool that makes it possible for applications to connect with users. |
| 2 | Router | Router is a networking device that forwards data packets between computer networks. |
| 3 | Firewall | Firewall is a network security system that monitors and controls incoming and outgoing network traffic based on predetermined rules. |
| 4 | Local Area Network | A local area network is a computer network that interconnects computers within a limited area such as a residence, school, laboratory, university campus or office building. |
| 5 | Device | Devices of individuals and organizations used to access the system |
| 6 | Database Server | Is a database server (SQL server) program. |
| 7 | Web Server | Is a web server service program. |
| 8 | Microsoft Graph API | Microsoft Graph is a RESTful web API that enables you to access Microsoft Cloud service resources. After you register your app and get authentication tokens for a user or service, you can make requests to the Microsoft Graph API. |

|  |  |
| --- | --- |
| Design Decision | |
| No | **Decision** |
| 1 | This separation shows the flow of the timetable system from a physical perspective to meet the Security quality attribute, showing the components and machines from accessing the website to the system's data store. |

# Dynamic Perspective

## Dynamic Perspective Level 0

Diagram

Description automatically generated

Figure 2

|  |  |  |
| --- | --- | --- |
| No. | Element | Description |
| 1 | Controller | Manage user interaction, work with service and choose views to display the user interface. |
| 2 | Repository | Link to the database. |
| 3 | Brower | User interface. |
| 4 | Microsoft Graph API | Microsoft Graph is a RESTful web API that enables you to access Microsoft Cloud service resources. After you register your app and get authentication tokens for a user or service, you can make requests to the Microsoft Graph API. |
| 5 | Business Service | Service handle logic for flow data connect to layer infrastructures or response to controller. |
| 6 | Database SQL server | SQL Server is a database server by Microsoft. The Microsoft relational database management system is a software product which primarily stores and retrieves data requested by other applications. |

|  |  |
| --- | --- |
| Design Decision | |
| No | **Decision** |
| 1 | Responsive design for an overview of the system. |

## Dynamic Perspective Level 1

Chart

Description automatically generated with low confidence

|  |  |  |
| --- | --- | --- |
| No. | Element | Description |
| 1 | View | View is the interface to the user. |
| 2 | Component | Components are the main building block for Angular applications. |
| 3 | Service | Service is a class that encapsulates some functionality and provides it for the rest of the application. |
| 4 | CheckHeader | This is where confirm login to Microsoft. |
| 5 | OneWayEncryption | OneWayEncruption is one-way encryption. |
| 6 | JwtTokenService | JwtTokenService is that when one-way encryption is successful token will be given. |
| 7 | Database SQL Server | SQL Server is a database server by Microsoft. The Microsoft relational database management system is a software product which primarily stores and retrieves data requested by other applications. |
| 8 | Microsoft Graph API | Microsoft Graph is a RESTful web API that enables you to access Microsoft Cloud service resources. After you register your app and get authentication tokens for a user or service, you can make requests to the Microsoft Graph API. |
| 9 | Brower | User interface. |

|  |  |
| --- | --- |
| Design Decision | |
| No | **Decision** |
| 1 | Responsive design for the system to bring quality attribute, Microsoft login. |
| 2 | Show detail of the system flow. |

## Dynamic Perspective Level 2

Diagram

Description automatically generated

# Static Perspective

## Primary Presentation

Graphical user interface, application

Description automatically generated

Figure 3

|  |  |  |
| --- | --- | --- |
| No. | Element | Description |
| 1 | Microsoft-API | Microsoft Graph is a RESTful web API that enables you to access Microsoft Cloud service resources. After you register your app and get authentication tokens for a user or service, you can make requests to the Microsoft Graph API. |
| 2 | Database | A database is an organized collection of data, generally stored and accessed electronically from a computer system. |
| 3 | Application | Is receive requests from FE. |
| 4 | Building Blocks | Is the logical support for other layers. |
| 5 | Domain | Is the folder. |
| 6 | Infrastructures | Is the place to receive data and link to data. |

|  |  |
| --- | --- |
| Design Decision | |
| No | **Decision** |
| 1 | Help to expand and develop easily |

# Database Diagram



# Mapping Between Perspective

## Mapping between Static and Dynamic

Graphical user interface, application, Word

Description automatically generated

## Mapping between Dynamic and Physical

Graphical user interface

Description automatically generated