SECJ3104: Applications Development

Software Design Description (SDD)

Timetable & Space Management System

Version 1.0

Date: 19 / 12 / 2021

School of Computing, Faculty of Engineering

Prepared by: Team Beta

Revision Page

a. Overview

This documentation outlines the requirements of our proposed system. The introduction includes the scope, definition, reference, purpose, acronyms, abbreviation and overview of the system. The specific requirements section includes External interface requirements, system features, performance requirements, design constraints, software system attributes and other requirements

b. Target Audience

Stakeholder and system analyst

c. Project Team Members

Member Name	Role	Task	Status
Eyad Reda Mohgoub	Leader		
Syed Farqaleet Bukhari			
Fadly Maulana Nasution			

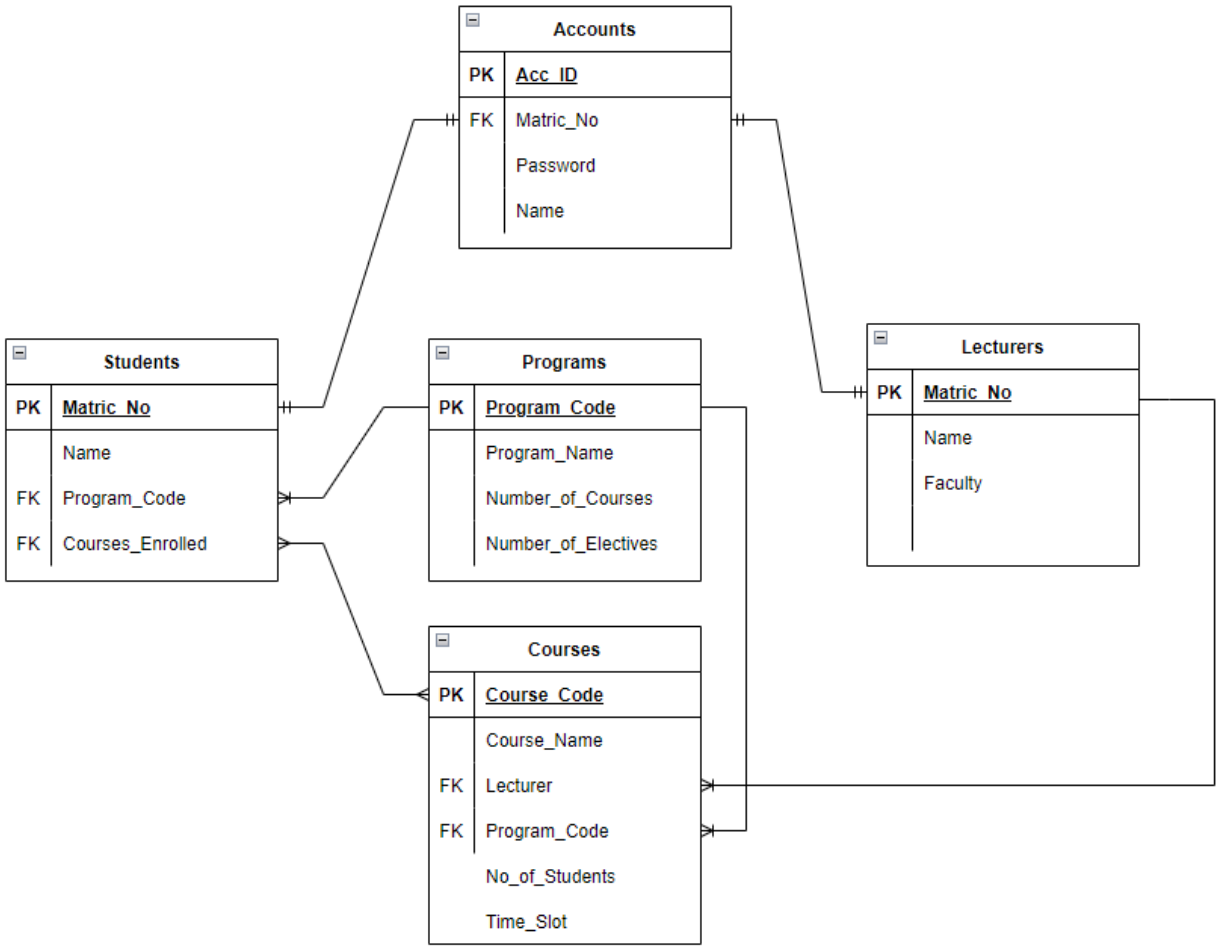
d. Version Control History

Version	Primary Author(s)	Description of Version	Date Completed
0.1	Eyad Reda Abdallah Mohgoub	Generated Outline	
1.0		Compiled Document	

Note:
This System Documentation (SD) template is adapted from IEEE Recommended Practice for Software Requirements Specification (SRS) (IEEE Std. 830-1998), Software Design Descriptions (SDD) (IEEE Std. 10161998 1), and Software Test Documentation (IEEE Std. 829-2008) that are simplified and customized to meet the need of SECJ2203 course at School of Computing, UTM. Examples of models are from Arlow and Neustadt (2002) and other sources stated accordingly.

Table of Contents

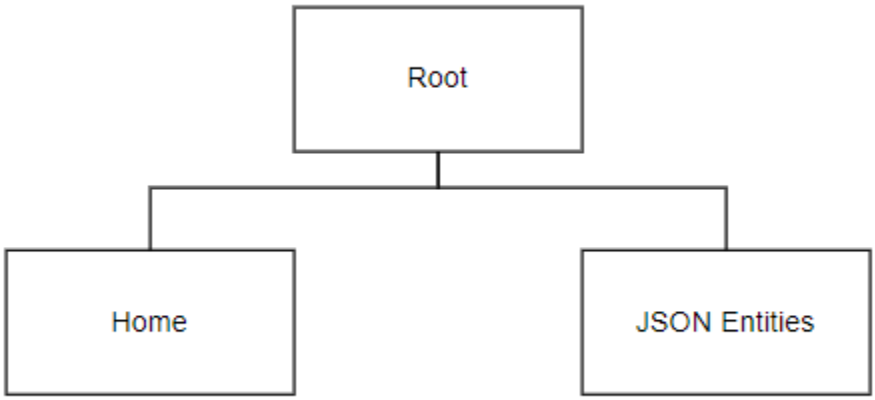
1. Entity Relation Diagram ERD



The figure above shows the ERD to be used in the development of the TBMS. Starting off with the Account entity which is responsible for storing all the data related to the accounts that will be used to access the system. The Students entity is responsible for storing all information related to all students registerd in UTM along with with what program they are part of and what courses that they have enrolled to. The Lecturer entity stores all information related to Lecturers currently working in UTM. The Programs entity stores all information about the current available programs along with number of subjects available for each and number of electives. Finally, the Courses entity stores all information related to the courses offered by UTM along with the lecturer assigned to them and the code of the program that offers this course.

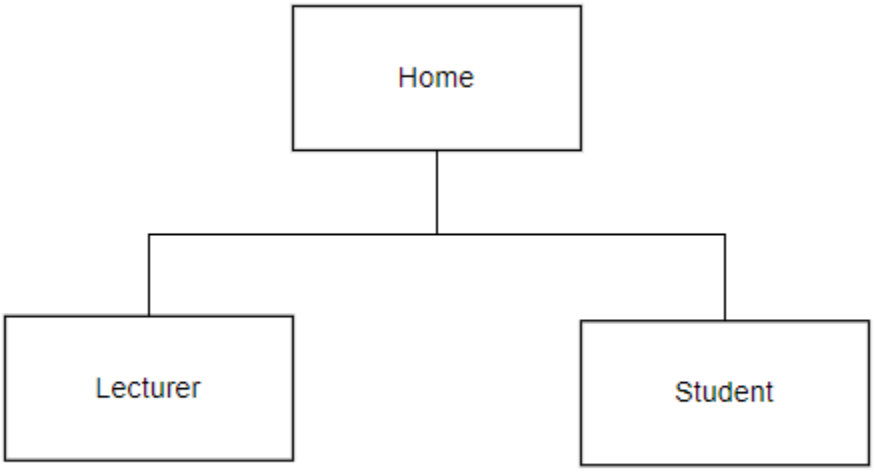
2. Application Link Structure

2.1 Main Link Structure



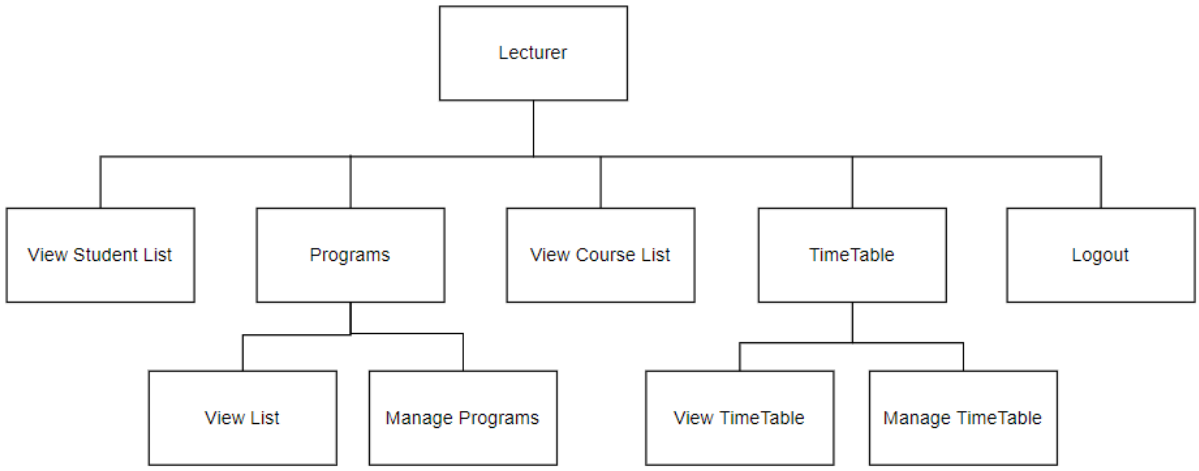
This figure shows main link structure for TBMS. The Root node is virtual; meaning that it is not an application page. The Root node is responsible for managing all the pages that will be displayed by the application. The Root node is also responsible for connecting the data provided by the JSON data service (JSON Entities node) with the applicaton.

2.2 Home Link Structure



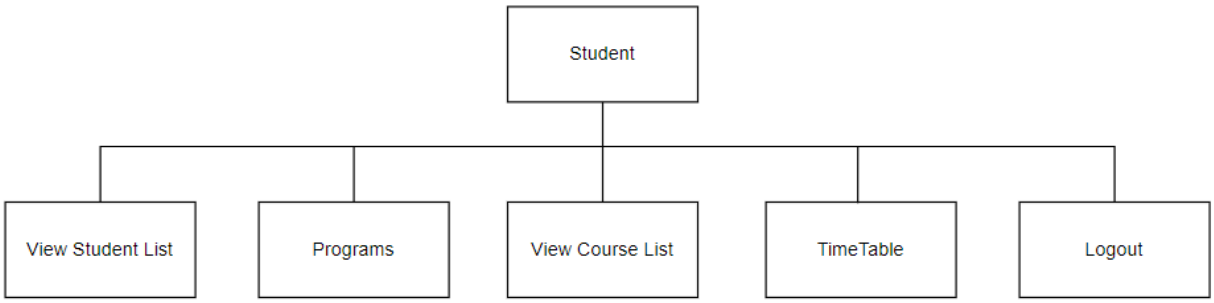
The Home link structure deals with all the different type of users that are going to use the system and manages permissions and and what pages will be displayed to each user. For TBMS, the two user groups are Lecturer and Student. Each node consists of further Sub links that will be further elaborated in the next sections.

2.2.1 Lecturer Sub Link Structure



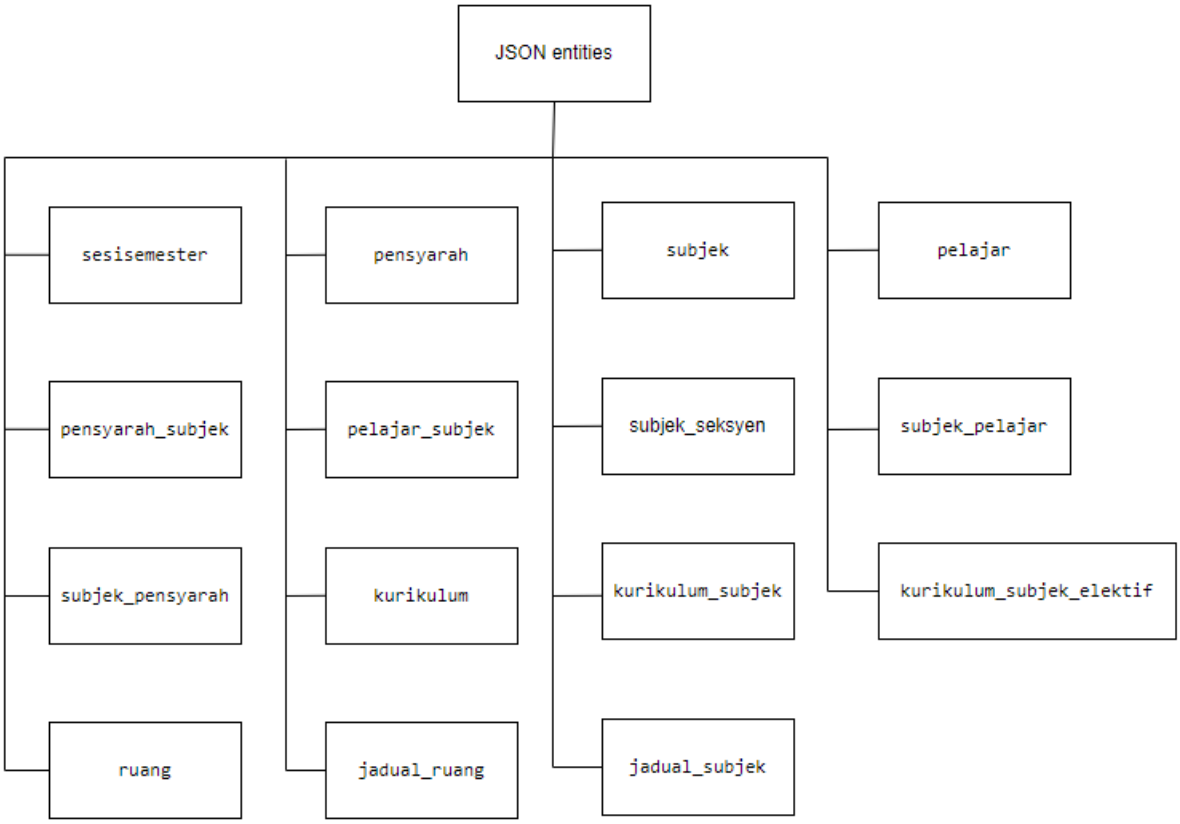
This sub link tree shows all the actions that a Lecturer can carry out after they log in to their respective account.

2.2.2 Student Sub Link Structure



This sub link tree shows all the actions that a Student can carry out after they log in to their respective account.

2.3 JSON Entities Link Structure



This link structure displays all available enitities in the JSON data service to be used by the application.