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**Project Proposal**

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# Description:

The Charles Darwin University (CDU) online portal is an online service that is used by CDU students to access certain resources like, software, forms, and learning material. One of these services is “Timetables” and this service is used by students to find what time their lectures are, where their lectures are located, who is conducting the lecture, and other information that pertains to the lectures. This proposal provides information on how this online service can be improved.

# The Problem:

When opening the “Timetables” service it takes a while to load the initial page. The initial page does not look very dynamic or user friendly after being loaded

![Graphical user interface, text, application, email

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**Figure 2.1 Timetables link page initial load**

Student information is loaded with the page as well but not dynamically implemented to construct an auto search. The user must enter their subjects manually to receive the information for their individual units. The student also has access to a lot of unnecessary information for a basic search. The student can search every single unit that is being taught in that semester. The service is very resource intensive and can shut down if too many users try to access the service at the same time. During the first week of Semester 1 2022 around 9am the service went down several times because too many users tried to access it at the same time. The demand for the resource increases at that time but the demand is higher than what can be provided.

Summary:  
 - Takes too long to load page

- Page is not very user friendly

- Student information is not loaded dynamically to assist search

- Too much information for a simple student lecture search

- Crash during peak service times

# Solution:

## Assumptions:

* User uses the new service to find their own lecture times and locations
* Users predominantly use the service on a mobile device
* User only require basic information
* User is a current student and has enrolled in CDU units

## Solution:

The designed solution will be a mobile app that can be launched from the CDU portal. To launch the app the user must already be signed into the student portal. The App will take the students unit information and load their individual timetables dynamically. The information provided will be: Day of the lecture, Time, Duration, Venue, and Teaching staff. If a user requires more information than what is given by the mobile app they will be directed to the current service, where more extensive information about the currently enrolled units is available and information about other units are available. The mobile app will reduce the load on the current service and provide a more dynamic and faster way for students to get the information about their units.

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Figure 3.1 Initial Mobile App layout

## Summary:

The solution will provide a more user-friendly mobile app that provides less information but is faster to load and more catered to individual student use. The information required will be loaded dynamically and extensive search is no longer required by the user. Solution requires less computing resources to function and can tolerate larger amount of requests.

# Inclusions:

# Exclusions:

# The Plan:

Working as a team of 2 (Conner and Ben), each team member will take on multiple roles in the design process. Meetings will be conducted to ensure the project remains on schedule and that the deliverables are met. Code will be stored on a GitHub repository so all members have access and can submit their work.

**Investigation of current service:**

* Tables required by the service
* Resources required by the service
* Current UI interaction

**List Project Requirements:**

All the functionality required for the mobile app to work

**Model design:**

**Database:**

* + - Create ERD
    - Create Tables
    - Import Tables

**View design:**

* Page design
* Mobile friendly design
* Stylesheet
* JavaScript
* Bootstrap

**Controller design:**

* Client and server coding
* Apply MVC standard to folders
* Include necessary folders
* Database interaction (Read only)

**Security implementation:**

* Logins
* SQL injection prevention
* Encryption

**Testing:**

* User testing
* Server launch testing
* Final code testing

## Gant Chart:

# References:

<https://cduportal.azurewebsites.net/>