Advanced CS Project Ideas S Group

1) Gamification of Canvas
    a) Project Requirements
        i) Description: Developing an application that "gamifies" doing assignments on Canvas (making progress in the "game" via work on assignments, etc.)
        ii) Target Audience: MAMS Students
        iii) Formal Requirements:
            (1)
        iv) Tools/Technologies:
            (1) Canvas LMS REST API
            (2) Tauri
                (a) CSS
                (b) HTML
                (c) TypeScript/JavaScript
                (d) Rust
        v) Who is on the team/what areas will each member focus on:

2) WPI Shuttle Tracking (Apps for Good instead of this project)
    a) Project Requirements
    b) Description: Mobile app which tracks location of WPI shuttle busses and presents to user on an app
    c) Target Audience: Mass Academy/WPI Students
    d) Formal Requirements
        i) Users will be able to see bus location an the app
        ii) Users will be able see bus arrival schedules
        iii)

3) STEM Meeting Scheduling
    a) Project Requirements

      i)   Description: An app/webapp to make scheduling meetings with Dr. C easier.

     ii)   Target Audience: MAMS Students

   iii)   Formal Requirements:

         (1) This app should be able to coordinate meetings with Dr. C.

         (2) This app should allow students to request time changes from other students.

         (3) This app should display currently scheduled times and open slots.

    iv)   Tools/Technologies:

         (1) Firebase and/or Google Calendar and/or VM database

         (2) Some authentication system with the WPI emails (Microsoft Integration/Outlook API?)

         (3) Flutter & Dart

     v)   Who is on the team/what areas will each member focus on:

         (1) Jacob: making app

         (2) Vishal: making app

         (3) Rohan: making app

         (4) * We were thinking it would be nice to collaborate on each aspect rather than working on everything separately

b) Project/Software Design Doc

c) Code

d) Tests

4) <mark>Student-Teacher Course Registration</mark>

    a) Project Requirements

       i)   Description: WebApp that allows students to navigate through courses @ WPI and choose which courses they want to take. Teachers will have their own portal to approve course requests.

      ii)   Target Audience

         (1) MAMS Students

         (2) MAMS Teachers

     iii)   Formal Requirements

         (1) Students must be able to view available courses

          (2) Students must be able to send course requests to teachers

          (3) Teachers must be able to view course requests

          (4) Teachers must be able to add and note course requests

          (5) Students must be able to add prerequisites to their qualifications

    iv)   Tools/Technologies

          (1) React Native or Tauri

              (a) Rust

              (b) TypeScript/JavaScript

              (c) React

              (d) Node.js

              (e) SQL

              (f) Firebase?

              (g) Github

              (h) Python

    v)   Who is on the team/what areas will each member focus on:

          (1) Jacob: making app

          (2) Vishal: making app

          (3) Rohan: making app

          (4) * We were thinking it would be nice to collaborate on each aspect rather than working on everything separately

b) Project/Software Design Doc

c) Code:

    i)

d) Tests