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Project – Parking Alert

This group project is a shared across your courses this term to show you how different technologies can work together to provide best user experience and wide range of choices. In the web part of the project, your task will be to build a web client for the system.

Project

MAPD112 Web Technologies for Mobile Platforms

Due date: See milestones

Weight: 50% in total

(see milestones for details)

# Introduction

Web is often first choice when it comes to quick prototyping. This approach has been proven to work and be very cost effective. It also gives developers a time to build a high quality native solution.

In this part of the project, your task is to build a web client for the Patient Clinical Data Management Application that you build in Android and iOS courses.

You are asked to help design a Patient Clinical Data management application for the health care providers (i.e. nurses and doctors) in hospital. The application shall allow health care providers to manage a group of patients. The application shall allow health care providers to view the detailed clinical data for an individual patient. The application shall allow health care providers to find out any patients in critical condition.

The clinical data can include the following information:

* Date/time, Type of Data, Reading/Value
* Data Type:
* Blood Pressure
* Respiratory Rate
* Blood Oxygen Level
* Heart Beat Rate

# Milestones

Milestone 1, Due: Week 11, Weight: 5%

Team formation and planning

Draft of the design document

Milestone 2, Due: Week 12, Weight: 7%

Final design document

First prototype that shows required pages and design for the smallest screen (phone).

At least 2 actions should be implemented (e.g. log-in, log-out, get record).

Draft Test Plan

Milestone 3, Due: Week 13, Weight: 10%

Design should support 2 sizes of the screen (phone in both orientations, tablet)

Milestone 4, Due Week 14, Weight: 10%

Working application with all functionalities implemented

Summary of tests based on the test plan

Presentation, Due: Week 14, Weight: 10%

Submit final version.

Present the project to the class and interview with the teacher.

Submit App documents, test plan, source code, … etc.

# Specification

1. This is a group project. You should work in a group of 2-3 students. A group work is important part of your learning experience as for that reason we strongly recommend it for this project.
2. Functionality of the client application:
   1. Using AJAX to fetch data
   2. View patient data to track and monitor four patient records.
   3. Select a single patient and see the chronological list of tests, results, vital…etc about the patient. We have 20 items per patient.
   4. Find out how many patients in critical condition.
3. The client should be responsive and support at least three basic sizes of the screen: desktop, tablet and phone.
4. The solution should use Bootstrap or similar framework and utilize features such as:
   1. Grid system
   2. UI components
   3. UI interactions
   4. Responsive menus
5. Solution should support at least 2 languages: English and language selected by you (e.g. French). Try to avoid machine translation (Google translate) or at least review the quality of translation if you do so.
6. The application should be able to store data locally and read it back
7. The application should make the AJAX calls to retrieve data.
8. Application should utilize the local storage/cache.
9. Your project should include unit tests (at least one positive and one violation test) for each JS method you developed
10. Documentation and additional requirements:
    1. Design document and high-level architecture diagram
    2. Test plan on how to test and verify the application that provides the following information:
       1. Test case number
       2. Title
       3. Purpose
       4. Precondition to run the test case
       5. List of steps
       6. Expected results
    3. Git or Bitbucket repository with your code (it will be used to assess your participation in the project)

You can use the Google progressive web application kit or any other framework that you are comfortable with to achieve the goal. Your design for mobile may imitate selected mobile look and feel (e.g., Android that is shown below).

