KILOMETER MANAGEMENT: MOBILE AND DESKTOP APPLICATIONS FOR THE EMPLOYEES OF PASI-JAKELUT OY

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INSPIRATIONS

❖ Based on the problems faced by the Pasi-Jakelut Employees,
❖ Office employees (Supervisors) have hard time to manage the kilometre details provided by the advertisement (mainoksia) deliverers

OBJECTIVES

❖ The main idea is to develop a hybrid mobile application for the deliverers and desktop web application for the Supervisors where deliverers can send the kilometer details as well as update basic personal informations.

❖ The Supervisor can check kilometer detail send by the deliverers.

APPLICATION FEATURES

Supervisors (Office Employee) Interface
- ❖ Supervisor interface
- ❖ Can view kilometre details
- ❖ Can send messages to the deliverer and vice versa.
- ❖ Can add, update, delete deliverers
- ❖ Add new Supervisor
- ❖ Can view the detail information of the deliverer.

User (Deliverer) interface
- ❖ Registered by the Supervisor
- ❖ Can login from the login information given by Supervisor
- ❖ Can Send the kilometre details
- ❖ Can send message and vice versa
- ❖ Can update profile, change password

USED TECHNOLOGIES AND IMPLEMENTATION

- ❖ Visual Studio Code
- ❖ Ionic Framework : Version 2
- ❖ Node.js
- ❖ HTML 5
- ❖ TypeScript
- ❖ PHP
- ❖ MySQL Database
- ❖ JSON
- ❖ PHP Desktop

MOBILE DEV APPROACH

❖ Native Apps
  ➢ iOS, Android, Windows

❖ HTML 5 Apps
  ➢ Built using HTML, CSS and JavaScript

❖ Hybrid Apps
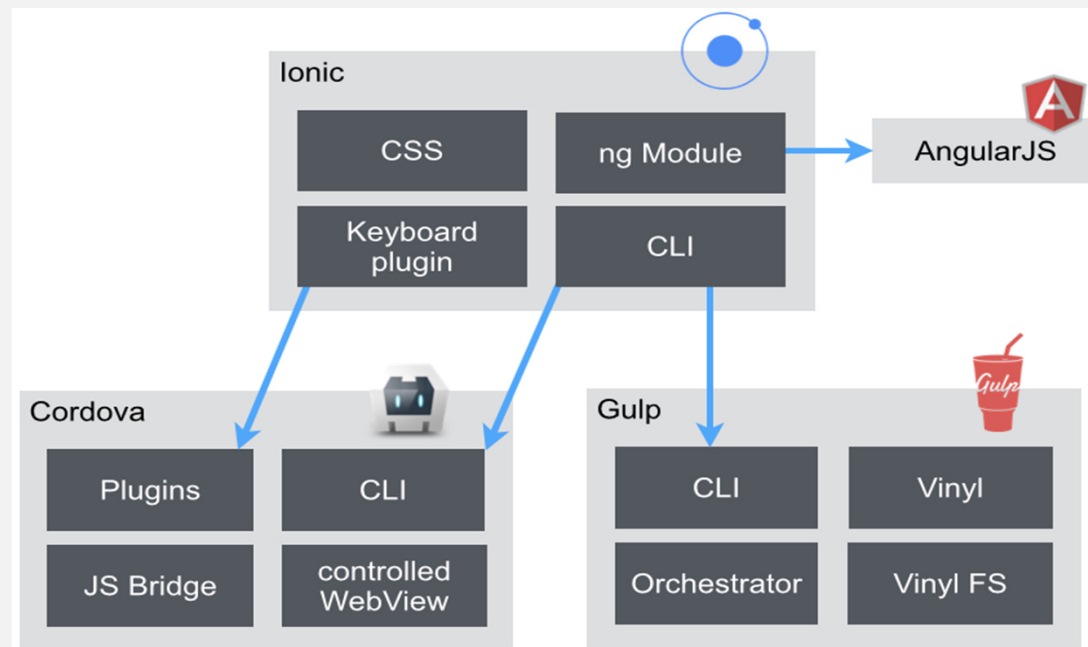 ➢ Web apps wrapped in a native container

MOBILE DEV APPROACH
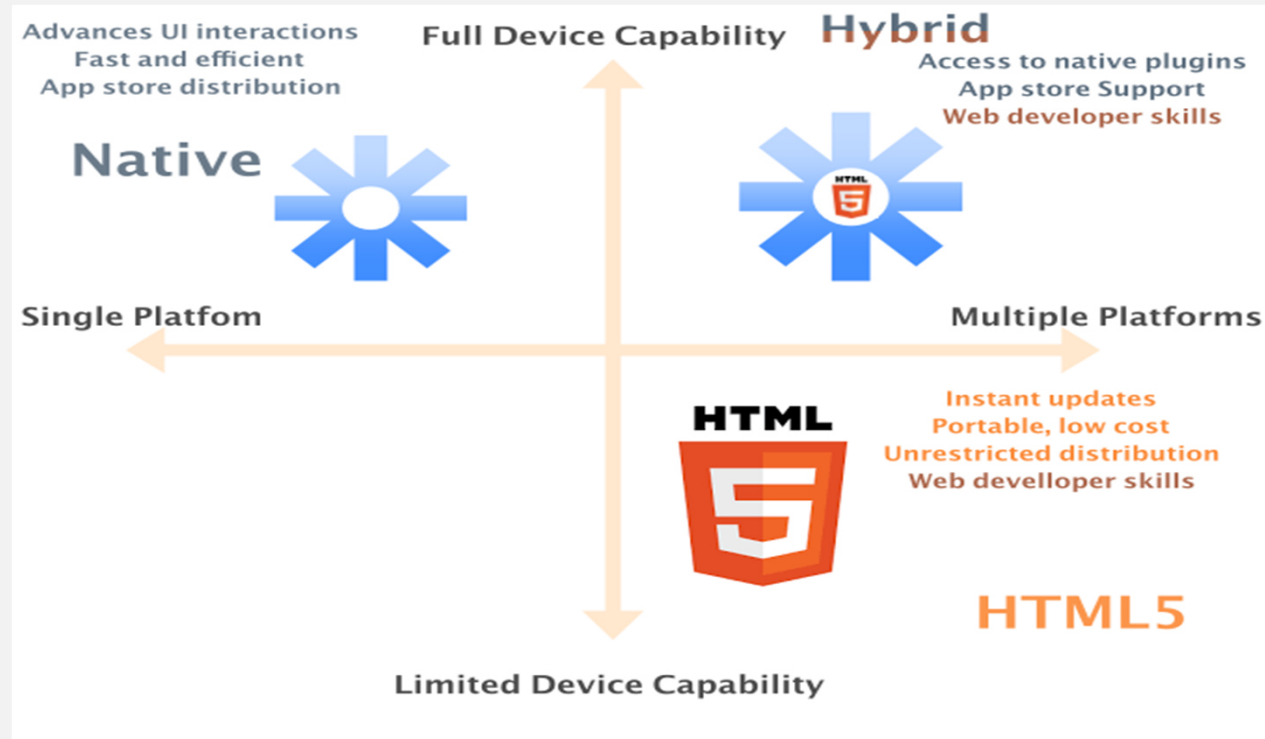
IONIC FRAMEWORK

❖ A user interface framework helps to build hybrid mobile apps with native feels using HTML 5 SDK, Created in 2013 by Drifty Co. , Alpha version in November 2013, in March 2015 a 1.0 final version was released and in 2016 and early 2017, several 2.0 were released. Ionic 3 Beta has been released in early April of 2017,
❖ Built on top of Angular – gives structure to the application
❖ Use JavaScript (ES5) or Typescript along with HTML 5, CSS (SCSS),
❖ Apache Cordova as a native wrapper,
❖ Supports multiple platforms (Android, iOS, Windows)

IONIC ARCHITECTURE

APACHE CORDOVA ARCHITECTURE

WebView

HTML	CSS
Resources	JS

JavaScript bridge
(provided by framework)

Hybrid App Framework

Mobile OS and native APIs

Plugin

App — uses → JavaScript plugin API

uses ↓

Bridge Interface

↑ implements

Bridge Implementation

| iOS | Android | ... |
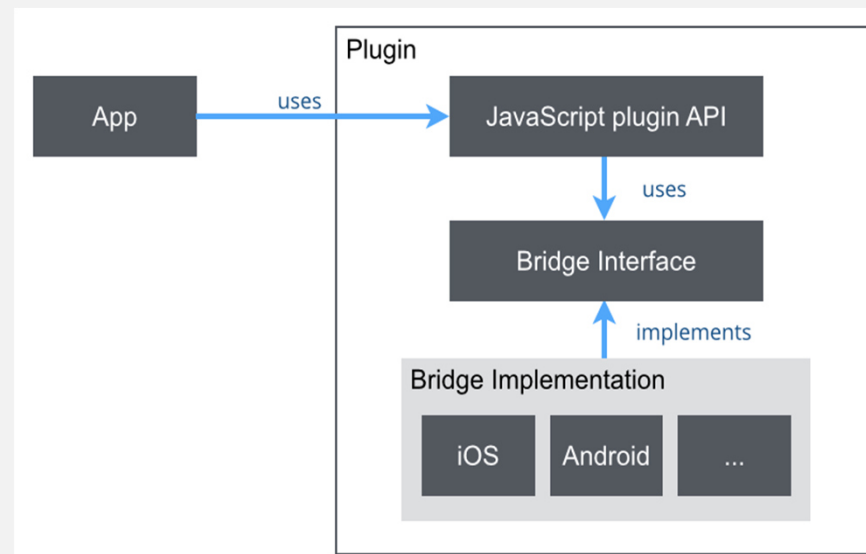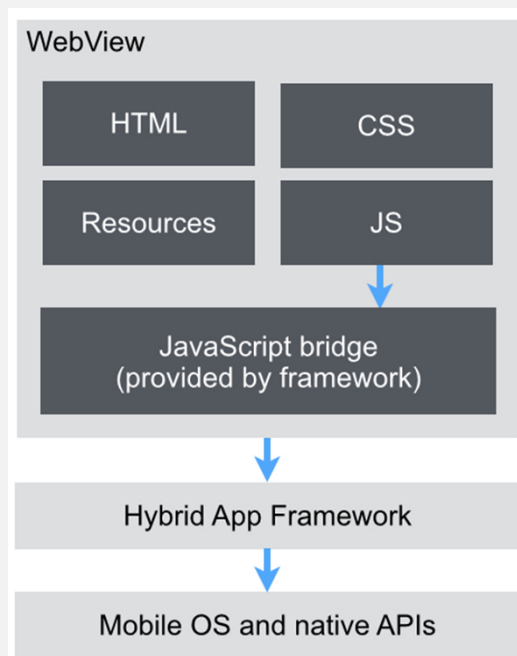
PHP-MYSQL AND PHP DESKTOP

❖ To connect the MySQL database, PHP is used as a server side APIs for the mobile and the PHP Web pages are implemented for the desktop web app.

❖ MySQL – database (host: mysql.cc.puv.fi), Web server: www.cc.puv.fi/~e1200655/

❖ PHP md5 encryption is used.

❖ PHP Desktop – open source, created in 2012 by Czarek Tomczak for native desktop GUI purpose using Web technologies like PHP, HTML5, JavaScript..

❖ No new API/framework to learn, copy paste existing website "phpdesktop/www/" directory gives you desktop app

❖ Inno Setup Installer helps to distribute the app by creating standalone executable setup file.

JSON

❖ JSON (JavaScript Object Notation) – to send and retrieve.
❖ Simple and easy to parse for the system.
❖ To parse JSON object, respData as JSONObject is created.

USE CASE DIAGRAM
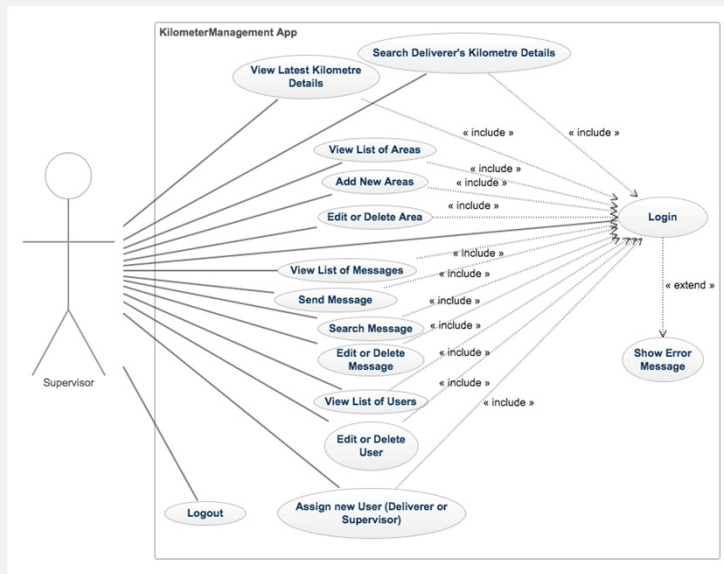
Supervisor's Use Case Diagram
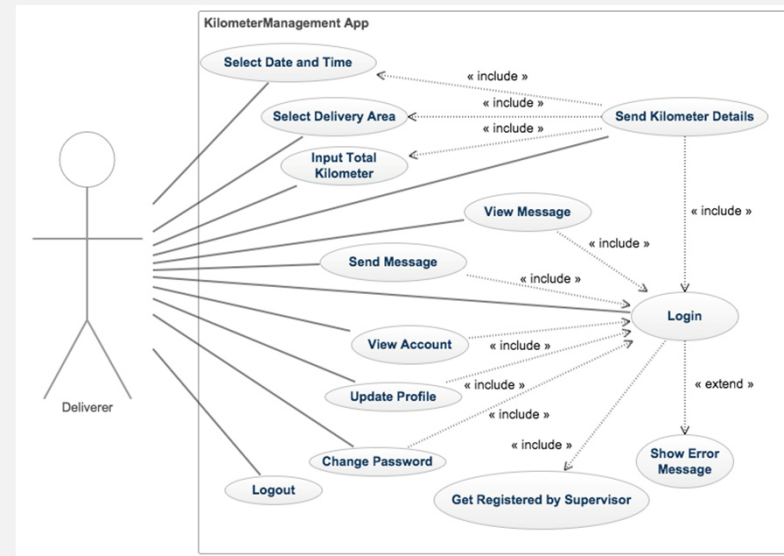
Deliverer's Use Case Diagram

KILOMETER MANAGEMENT APP – BASIC ARCHITECTURE
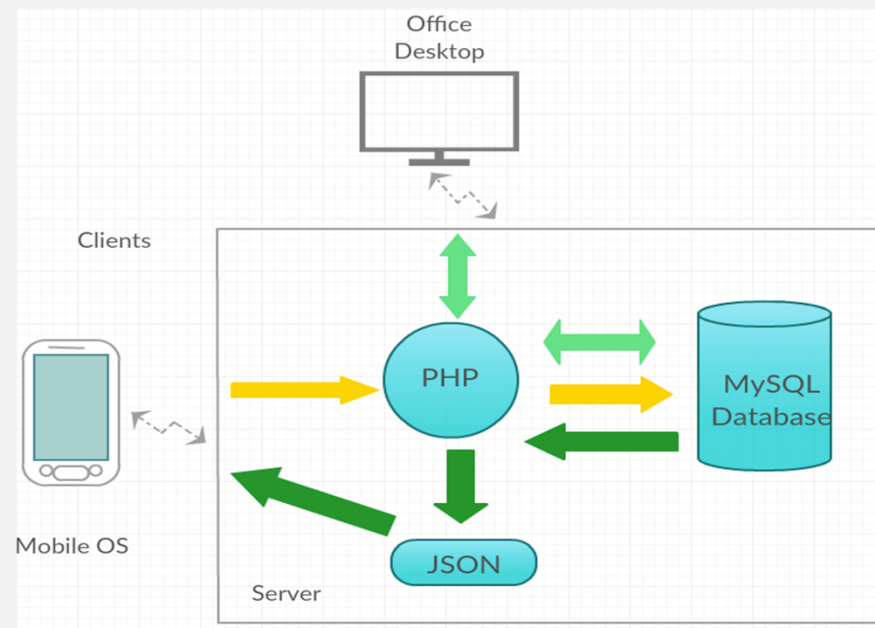
APPS FOLDER STRUCTURES

Ionic 2 mobile app

Web App

SCREENS SHOTS

SCREEN SHOTS

DEMO

REFERENCES

- ✓ https://github.com/cztomczak/phpdesktop
- ✓ https://ionicframework.com/
- ✓ http://codingthesmartway.com/ionic-2-project-structure/
- ✓ http://www.androidauthority.com/html-5-vs-native-android-app-607214/
- ✓ https://blog.codecentric.de/en/2014/11/ionic-angularjs-framework-on-the-rise/
- ✓ https://commons.wikimedia.org/wiki/File:HTML5_logo_and_wordmark.svg

THANK YOU
ANY QUESTIONS/SUGGESTIONS??