Students must submit a Literature Review & Statement of Research Intent (Total 8 pages for the whole document):

Literature Review Part (5-6 pages), Statement of Research Intent Part (1-2 pages) [single column, double-line spacing, excludes the front page, No appendices permitted, Reference IEEE format].

1 Abstract

2 Introduction

3 Literature Review

3.1 Parking Models

How has parking been traditionally done, researched

3.2 Pricing

- Dynamic vs static pricing models.
- Airbnb vs Uber pricing

3.3 Technologies to Implement Mobile Application

Bjorn-Hansen et al. investigated the features and performances between different cross-platform development frameworks, such as React Native (interpreted), PWAs, ...

3.4 Mobile Map Technology

3.5 Usability of Mobile Applications

3.6 Existing Applications

Apply Nielsons Heuristics to similar applications and see where they can be improved

4 Discussion

- What features are we going to include in our application.
- What technologies we will use
- What will we do differently than existing applications
- Other considerations

5 Statement of Research Intent

Rental parking mobile application. Short term parking, ad hoc reserved for 30 mins. Can expand to subscription models for specific spaces. Map showing rental places near user. User can also input end location to find rental spaces near there. No navigation built in, but use google maps api. User inputs credit card/payment method on signup and we automatically charge from there. Time window for a parking spot, so owner can use when they want, need to tell parkers too. Address of parking spot and images. Can include number of spots per parking location. Quarter hourly rate for spots

Start session using the app, and end session using app. No QR code needed.

Pricing model: Per minute/10minute/15 minute charging, so if you only need for a short period you pay very little. Min charge of 15mins to discourage immediate fraudulent ending. Keep price fixed for now, can change in the future

Enforcement: Peer to peer reporting. If you go to a parking location, and there is a car there, user can report. Owner can also report. Strike model, banned if exceeded, fines if caught

6 References