Piyush Patil:

My contribution to the CMPE-277 Smart Parking System was

       1) Creating an User Application

       2) Creating a Sensor Simulator for Smart Parking System

1) User Android Application

I was responsible for creating an application for users of Smart Parking System who are in search of the free available parking spots. My application implementation includes following areas:

Checking permissions from user for allowing to share his/her location with the application

Case 1: User denies permission to share his/her location with the app

       1.1 Provided user search area to put specific location using android SearchView.

       1.2 Used Google API to get Latitude and Longitude of entered location by the user (e.g. Zip code/Address).

       1.3 Passed Latitude and Longitude values to Range activity.

       1.4 Implemented Number Picker to ask user to select the range around the location.

       1.5 Put location on the google maps as well as implemented service to use RESTful API to send the location and to get the simulated sensor id, sensor locations, cost of parking as JSON response.

       1.6 With the help of local broadcast, available free parking are shown on the map.

       1.7 Provided a navigation button which can navigate user from his/her current location to selected available free parking spot.

Case 2: User gives permission to share his/her location with the app

       1.1 Use location services to get Latitude and Longitude

       1.2 Followed same procedures as above from 1.2 to 1.7.

2) Creating a Sensor Simulator for Smart Parking System

Created a sensor simulator using HTML and JavaScript to mimic the functioning of the parking sensors.

Provided three functionalities in simulator:

       Automated the simulation

       Manual control over the simulation

       Logged the calls made by the sensor simulator to the cloud

Khizer Hasan Syed:

I have developed the part of backed on Cloud and some part of Admin Application.

Admin Application:
Developed the code for statistic fragment of the application. Used MPCharts API.

I Used EJB to develop the java application for backend. I have used Java persistence API to store the data in the MySQL database.

I Used JAX-RS to develop the RESTful services for the User application in the Backend.

Configured Glassfish Server and MySQL database on EC2 Instance

Chen Yu Wu:

Administrator mobile app:
Developed login function, user and sensor management segments using Asynchronous calls to the backend RESTful API

Back-end server:
Admin application RESTful API implementation in the backend using JAX-RS

Load balancing and Auto Scaling on AWS.