



“RU Ready to Park Smart?”

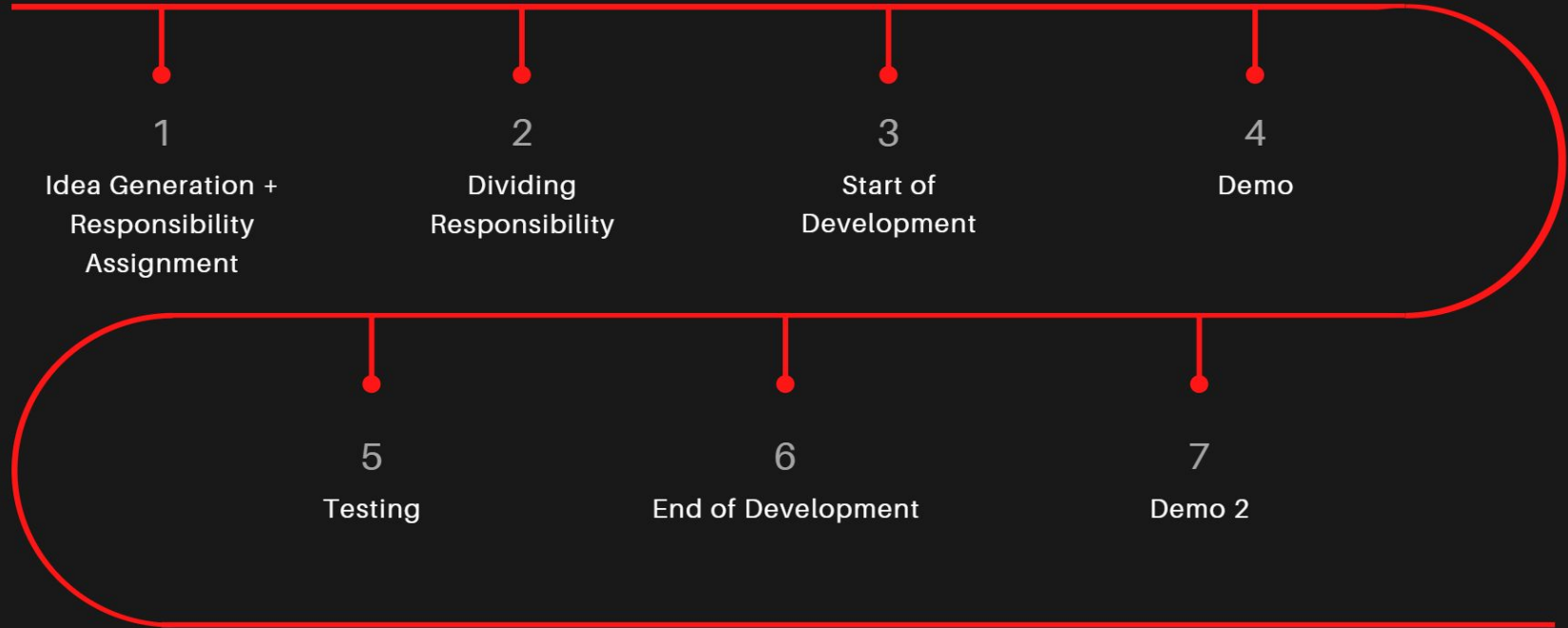
Smart Park Demo 2

Group 3

Disha Bailoor, Neha Nelson,
Param Patel, Swetha Angara, Nicholas
Meegan, Thomas Murphy, Charles
Owen, Jeffrey Samson, Aniqah Rahim &
Brian Ogbebor

SMART PARK

Demo Roadmap






Customer Registration Subgroup

- Sign Up/Login
- Make a Reservation
- Edit a Reservation
- Pay Bill
- Edit Account
 - Add Credit Card
 - Vehicle Information

Neha Nelson
Brian Ogbemor
Param Patel



Use Cases and Implementation

- Use Case 1: Register
- Use Case 2: Login
 - Managed by Auth0
- Use Case 3: Edit Account
 - Adding Credit Card and Vehicle Information
 - Updates the relevant MongoDB tables with new information
- Use Case 4: Make Reservation
 - Changed Calendar UI (more user friendly and easier to navigate)
- Use Case 5: Edit Reservation
 - Lists all currently made reservations and gives the options to edit or delete specific ones from the list
- Use Case 7: Pay Bill
 - Lists all charges from Complete, Incomplete, Overstayed and Extended Reservations + option to pay all of them at once



Managerial / Administrative Subgroup

- Set Pricing
- View Garage Information
- View Garage Usage Statistics
- Voice Recognition
- View Events

Swetha Angara
Aniqa Rahim
Jeffrey Samson



Use Cases and Implementation


- Use Case 10: Set Pricing
 - Manual Pricing Page: Can set overstay fees and basic pricing rates for parking
- Use Case 11: View Garage Information
 - Garage Overview Page: View current spot status of all spots in garage
 - Reservations Page: Search bar implemented
- Use Case 14: View Garage Usage Statistics
 - Statistics Page:
 - Dynamic graphical information derived from backend connection Reservations in MongoDB
 - Dynamic pricing recommendations feature based on the current information shown in each specific graph view
 - Link to Manual Pricing page for Managers to implement recommended actions and change SmartPark pricing
- Use Case 16: Voice Recognition
 - Google Assistant:
 - Recognizes new streamlined reservation commands
 - Sends and saves reservation information to MongoDB Reservations Data Collection to be viewed on the Manager Reservations Page and the Customer Reservations Page
- Use Case 19: View Events
 - Events Page:
 - Administrator can view, edit, and delete events and additional information daily.
 - Backend connection to the MongoDB Events Data Collection



Elevator Operation Subgroup

- Updates to Dynamic Pricing Model
- QR Code Capability for Elevator Front End
- Backend Connection to Elevator Front End

Disha Bailoor
Charles Owen
Nicholas Meegan
Thomas Murphy



Use Cases and Implementation

- Use Case 10: Set Pricing
 - Improvement to the view/edit price model page
 - A date-range selection view/edit price model page. The inclusion of a date-range setting
 - Empowers the admin to set a pricing model for a specific period as indicated by selected dates
 - Addition of the edit weights page
 - Admin can now view a graph of the historic occupancy percentages by date.
 - Can then set appropriate "weights" for any time period in the future. This data can be used to adjust the price model to relax or raise prices over a given period based on historical data.
- Use Case 17: Park
 - Employs the Elevator Front End from demo 1 paired with the MongoDB backend created in demo 1
 - For purposes of the demonstration, the customer is able to select his or her license plate number or choose from a few randomly selected plates that have associated reservations
 - License plates can be cycled by refreshing the page
 - The front end then makes requests to the back end to check for reservations through the plate number or through reservation number

Future Endeavors

- Integrating all components of the SmartPark system



“RU Ready to Park Smart?”

Smart Park

Thank you for watching!