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**5 Application Testing**

**Table 5.0 Application Test**

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| **System Unit** | **Test Case** | **Result** |
| Login Activity | Click on Login button | Authenticate user based on the input user credentials |
| Login Activity | Click on Register TextView | Navigates to Register Activity |
| Admin Login Activity | Click on the Parked Vehicles button | Navigates to Parked Vehicles Activity |
| Admin Login Activity | Click on the History button | Navigates to Parked History Activity |
| Admin Login Activity | Click on the Logout button | Signs out the currently authenticated user from the app |
| Home Activity | click on the Login Page button. | Navigates to Login Activity |
| Home Activity | click on the Parking Spaces button. | Navigates to Login Activity |
| Available Slots Activity | On opening this Activity | Displays a list of Parking Spaces that are available |
| Parking Vehicles Activity | On opening this Activity | View the currently parked vehicles in the Parking Space |
| Parking Vehicles Activity | Click on Floating Action Button | Navigates to Vehicles Entry Activity |
| Parked History Activity | On opening this Activity | View the previously parked vehicles in the Parking Space |
| Register Activity | click on Register button | A user account will be created if the entered data is valid |
| Vehicles Entry Activity | click on IN button | Adds a vehicle into the database if the entered data is valid |
| Parking Vehicles Activity | Click on added Vehicle Card | Alert Dialog pops up asking to whether to remove vehicle from database.  On successful removal of the vehicle, app navigates to Vehicles Exit Activity |
| Vehicles Exit Activity | On opening this Activity | View the auto generated bill for the calculated parking duration |
| Forgot Password Alert Dialog | Click on Yes button | Sends a password reset email to the entered mail id |

Conclusion

1. The parking management system app is effective in detecting the available parking slots through real-time data collection.
2. In addition to that the app can be a part of a bigger revolution by reducing the traffic in a city by informing the user about the parking spaces.
3. The manual process of entering the vehicles in the vehicle register book is eliminated.
4. Further enhancement is required to make the user view his or her nearby parking areas.
5. Overall system can handle all the requests from the User to give a fresh digital look for current parking management system

Future enhancements

1. Online booking of parking slots in a parking space/area so that users can reserve the parking slot for his/her vehicle.
2. Redesigning the user interface of the app.
3. Creating a profile page for the admin of the parking space so that he/she can update not just his/her profile but also details regarding the parking space/area.
4. Integrating the app with Google maps to easily locate or navigate to the parking area.
5. A feature to view the nearby parking areas

7. References

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