



Wi-Fi OPTIMIZATION APP (PROJECT ORION)

TEAM ECHELON

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PRODUCT BACKLOG

USER 1: (HIGH PRIORITY)

I am a developer and I live in a big flat. My working space is at the furthest point to the router. For that reason, I am using my old router as an access point but when I go to my room, my phone does not switch automatically to the Wi-Fi which has the strongest signal. I can set the range of signal strength by pressing "List of Conditions" and pressing again to "Set Range of the Signal Strength" so I do not need to make an intervention thanks to the Orion. However, I cannot select the area manually, I hope they will add this option in the future.

Pre-condition: User must give permission to manage the Wi-Fi network control.

Post-condition: User can set the range according to dBm values on Wi-Fi list.

USER 2: (HIGH PRIORITY)

I was working in a big company, but I have to work at home now due to Covid-19. I bought an access point to place it in ground floor because I want to use my computer in my garden while working. The connection strength is getting weak when I go to the downstairs during the work. In the application, I can set priorities by checking "Set Priority" in "List of Conditions" menu so I can choose my own Wi-Fi's. That's why I love Orion.

Pre-condition: User must check the set priority box.

Post-condition: The application connects to the prioritized Wi-Fi's first.

USER 3: (MEDIUM PRIORITY) (EPIC)

There are two access points in my office that placed in different points, but I cannot switch Wi-Fi automatically. I do many phone calls due to my job and need to use my battery efficiently too. I have used many apps to solve this but they drain the battery too fast. Orion has an option which allows setting the checking frequency to reduce battery consumption. It is available in the "Settings" as "Set Frequency of Checking". That's why I am using it and recommend to everyone in my office. Also, I could use the application easily but I wish it had a user manual to setup the application for the other users who are not familiar the applications like this.

Pre-condition: User must enter a value (sec/check).

Post-condition: Application will work periodically depending on the input value.

USER 4: (LOW PRIORITY)

I am a student and have to stay in a dormitory. The dormitory does not have a good wireless technology, there are separate Wi-Fi for each floor but we are not able to connect automatically to the nearest Wi-Fi. And that causes increase of the signal attenuation. To handle this issue, I recommend Orion app to my dormitory friends. In addition, I can set dark theme to take care my eyes from blue lights by going into "Settings" and pressing "Set Theme" but I think design of the application would be more organized.

Pre-condition: User must have at least Android 10 to use the dark theme.

Post-condition: The application runs with dark theme.

Sprint (First) Plan Table

1 st Sprint (Backlog)	2 nd Sprint (Developing and In-Process)	3 rd Sprint (Completed)
More Compatibility for Other Themes for Old Android Versions	User Manual for First Time Users (Ahmet)	User Interface Design (İlker)
Range Recommendation System	Connectivity Area can be marked with Map (İlker)	Listing Wi-Fi Stations and Their Information (Ahmet)
	Default 'Frequency of Checking' Value (Ozan)	Setting Range of the Signal Strength and Prioritizing Wi-Fi Stations (Ahmet)
		Battery Usage Optimization (Ozan)

Sketches of App Designs

