

Graduation Project

For obtaining a license degree in Mathematics and Computer Science

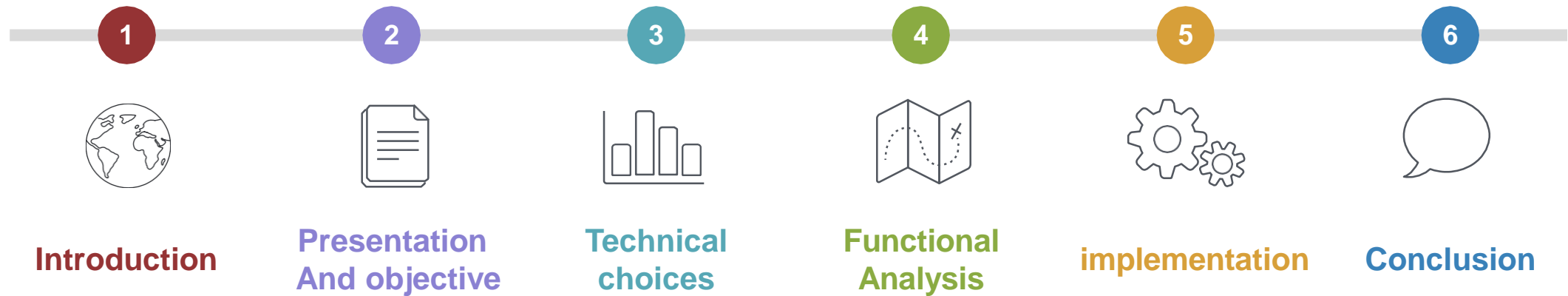
Development of an Android Application for Weather « TAQS »



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Supervised by :
Pr. Mohammed EL OUAZIZI

Plan



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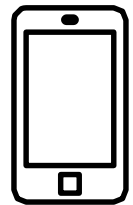
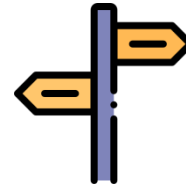
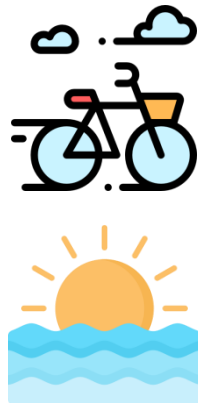
Introduction



Introduction



- Weather forecast is so important in our daily life.
- People use weather predictions to determine many aspects of their day:



- Number of Smartphones users worldwide has increased rapidly

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Objective And presentation



Objective of the application

My application TAQS is an application designed to be as simple and intuitive as possible, allowing access to current meteorological data for any place on Earth.





Presentation of the application

This Application must allow the user to:

- See Current location Weather.
- See Weather in main Moroccan cities.
- Search for weather by city name.
- Change Units.
- See his location on Google Maps.
- Change application language.

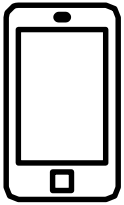
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Technical choices



Why choosing Android?

Android



3,50 Billion

smartphone users in the world today



45,15%

of people have smartphones today



2,50 Billion active Android devices

Google announced that there are currently 2.5 billion active Android devices

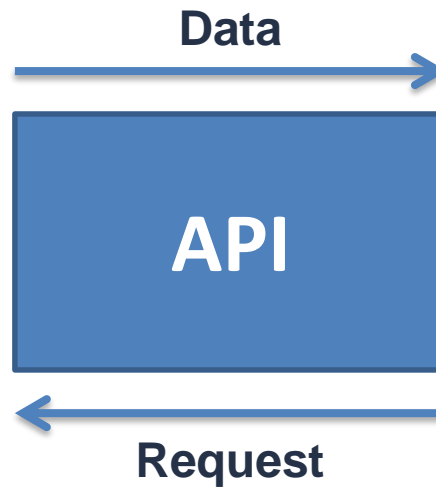




API: Application Programming Interface



An API is a set of definitions and protocols for building and integrating application software



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Functional Analysis



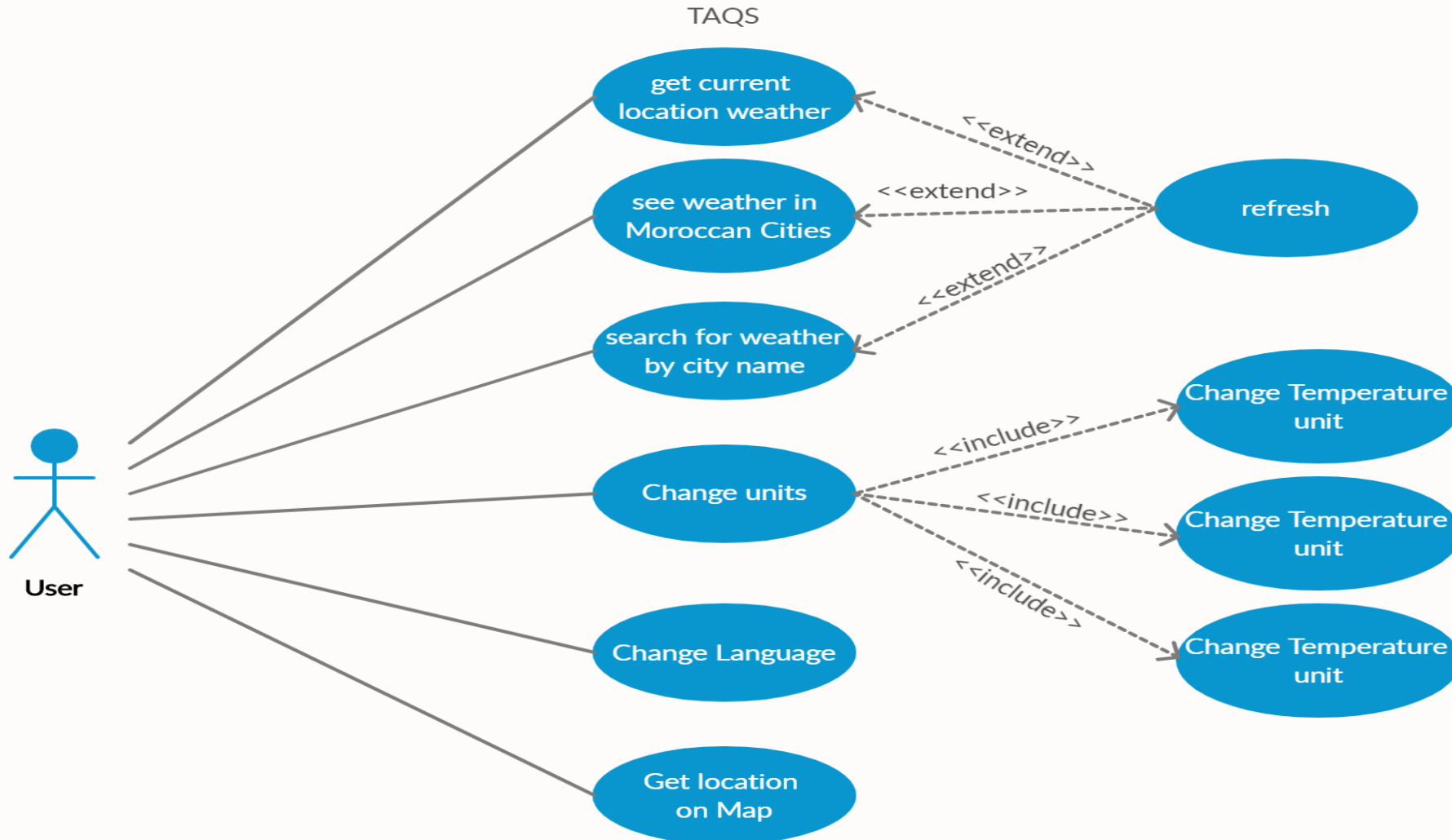
Identification of Actors



In this app, there is only one actor which is the user who have access to all the functionalities.

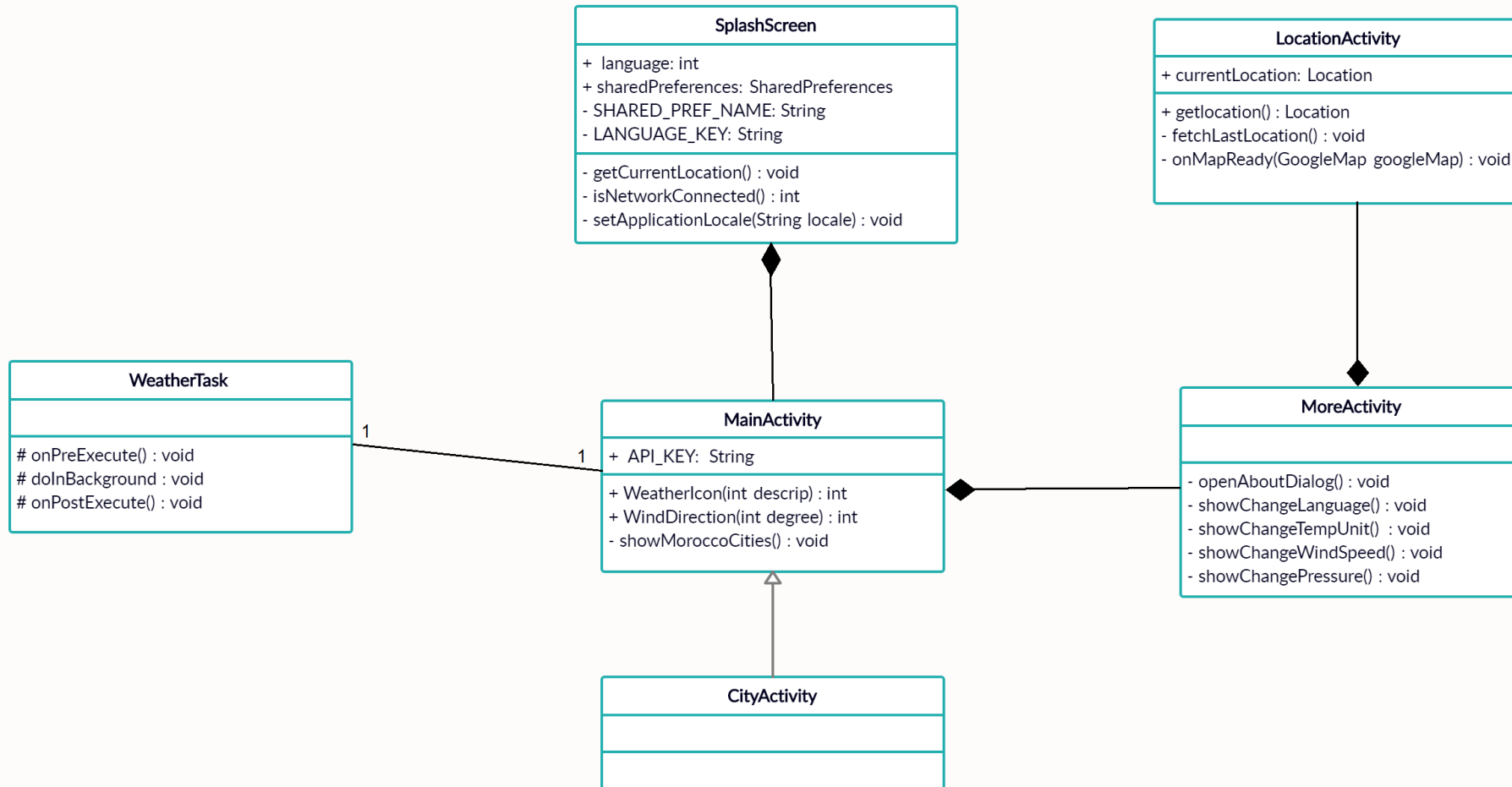


Case use Diagram



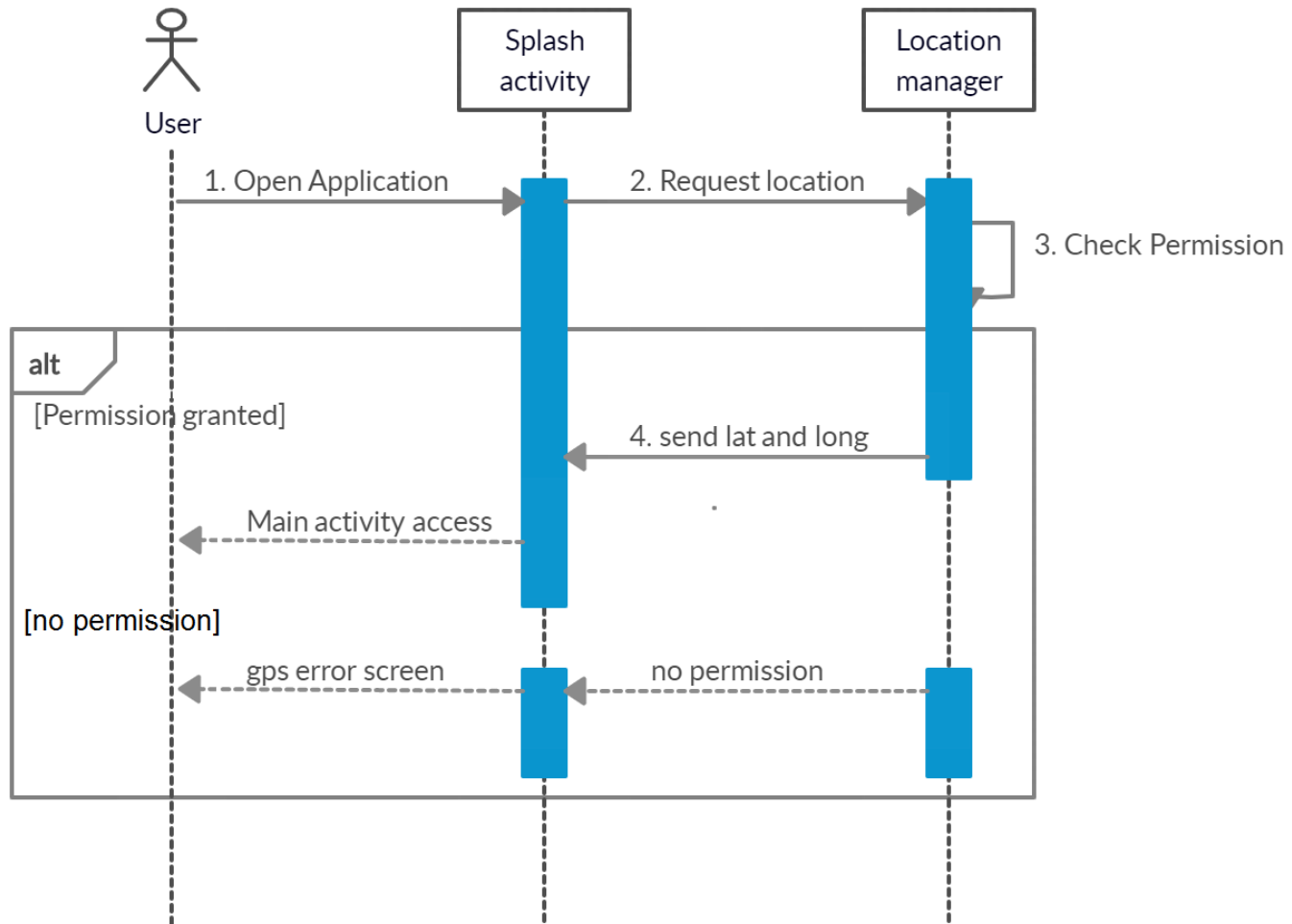


Class Diagram



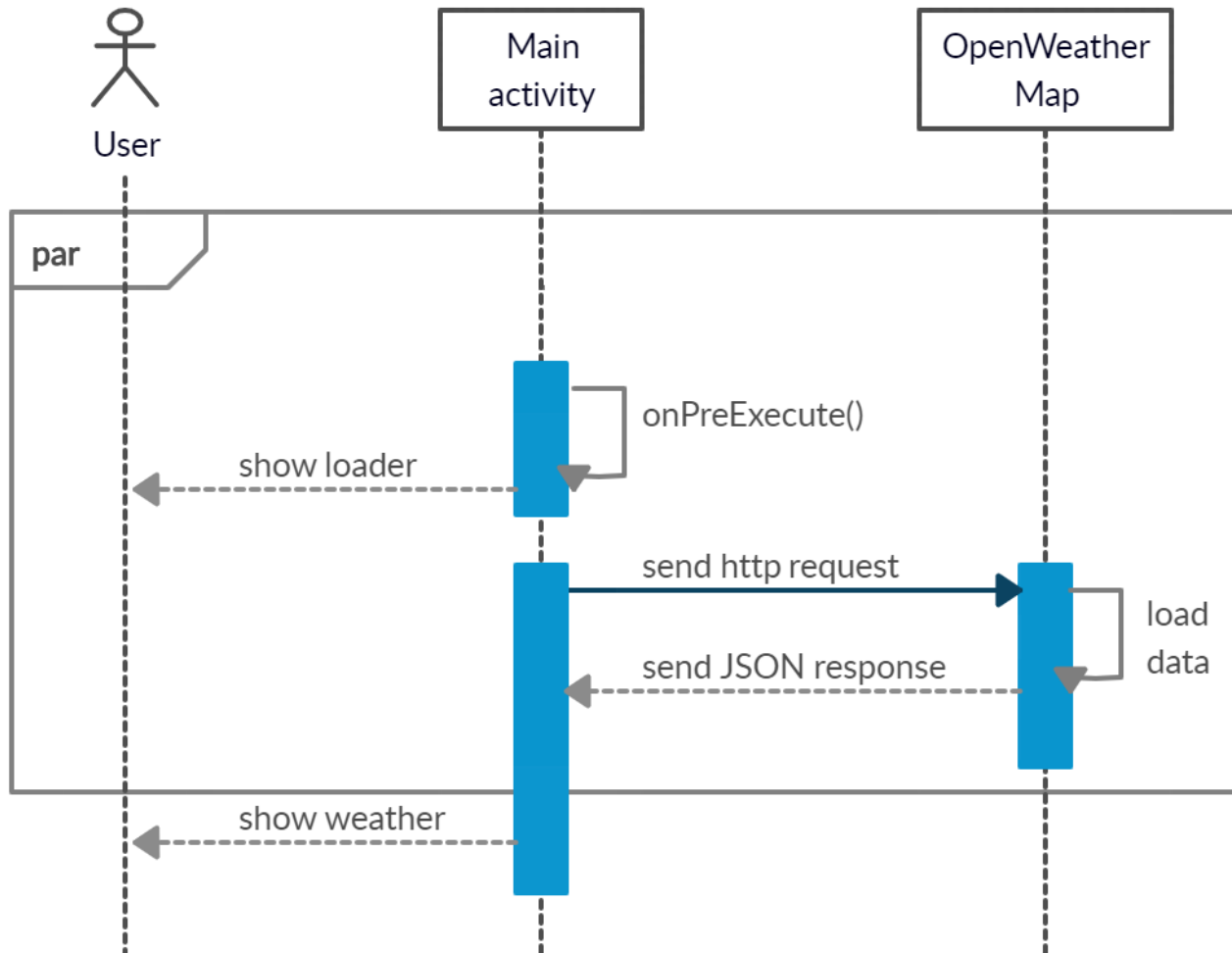


Sequence Diagram: Splash Activity



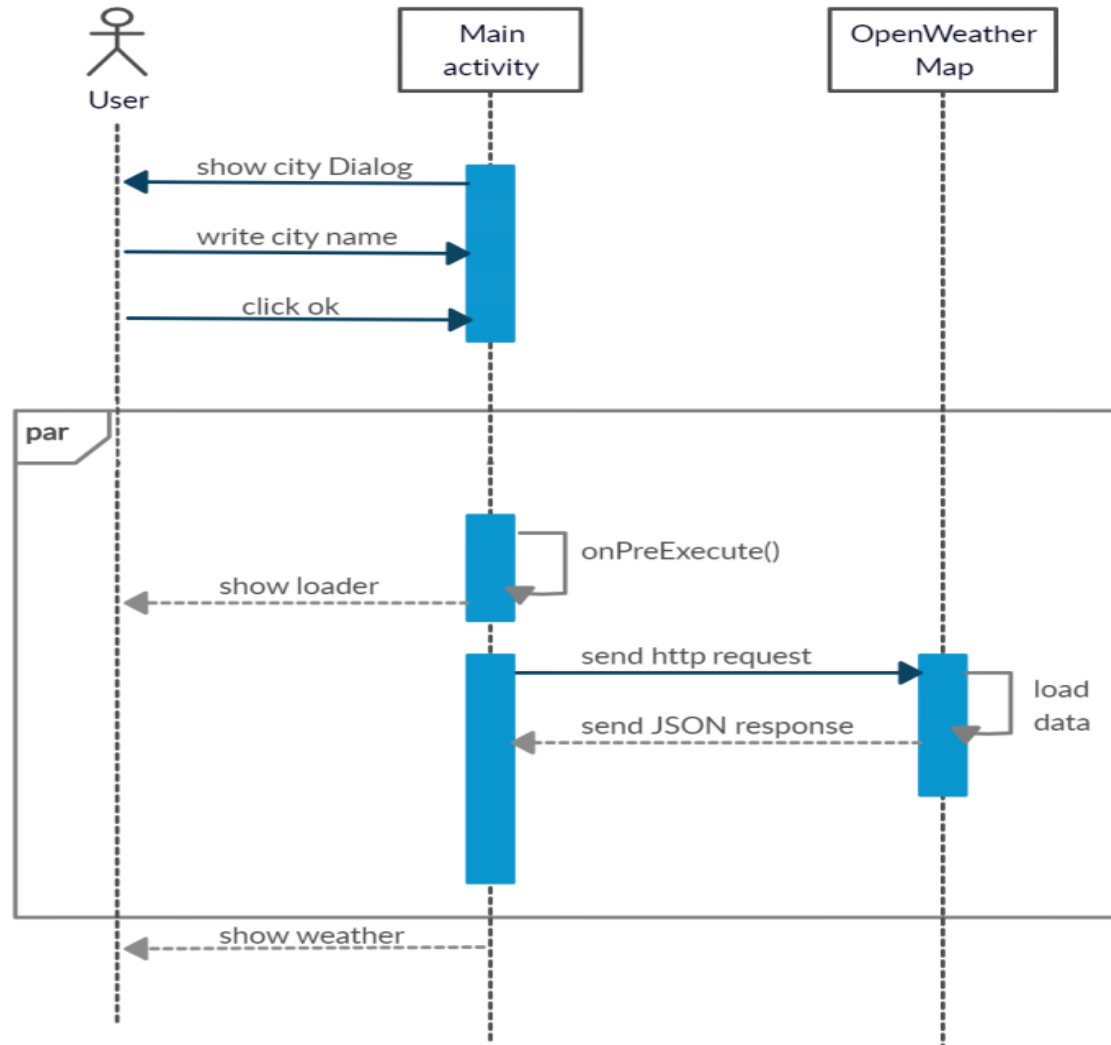


Sequence Diagram: Main Activity



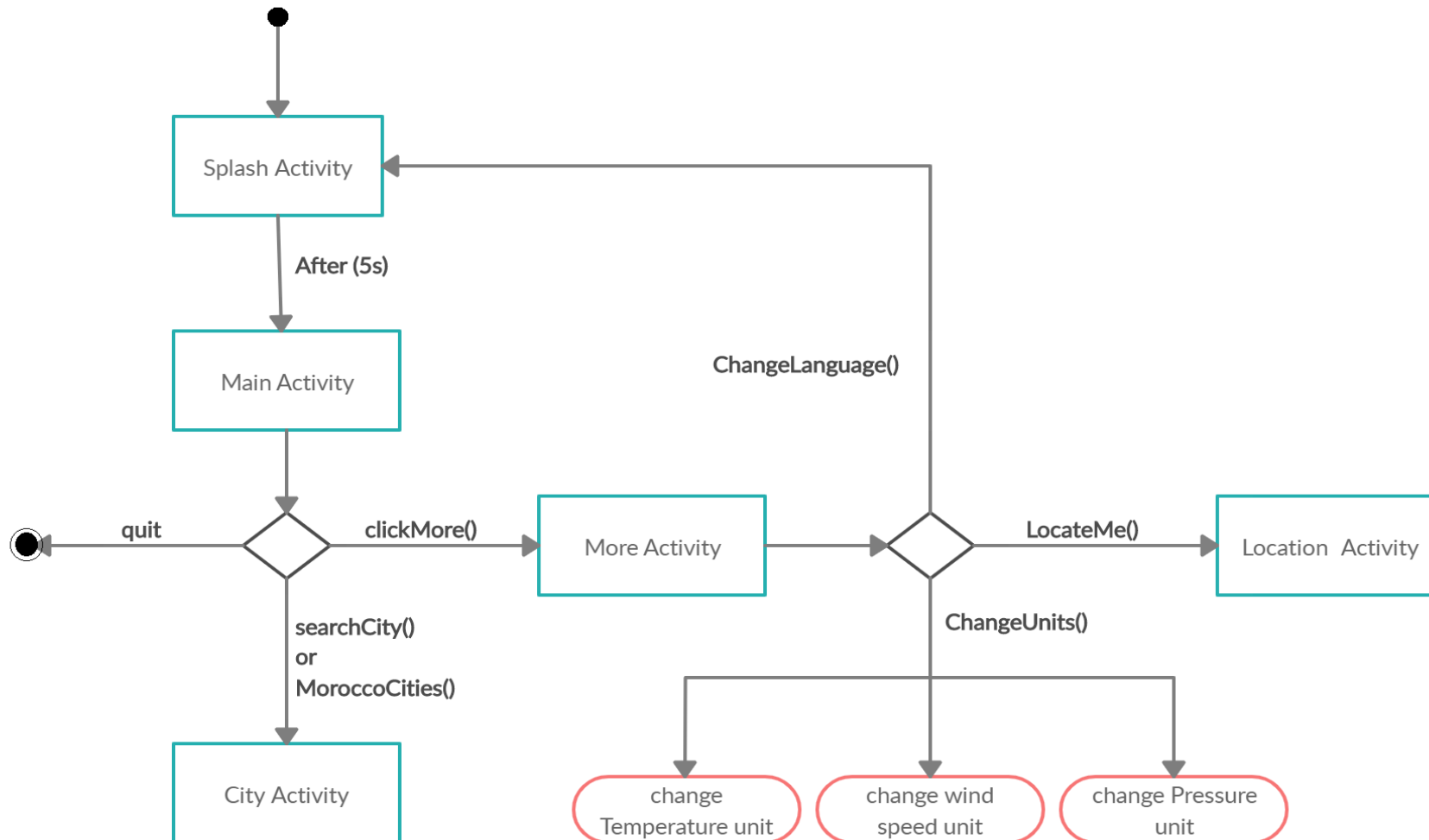


Sequence Diagram: City search Activity





Activity Diagram



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Implementation



Software Environment:

Operating System



Programming
Language



Modeling
Language



Building
Tool

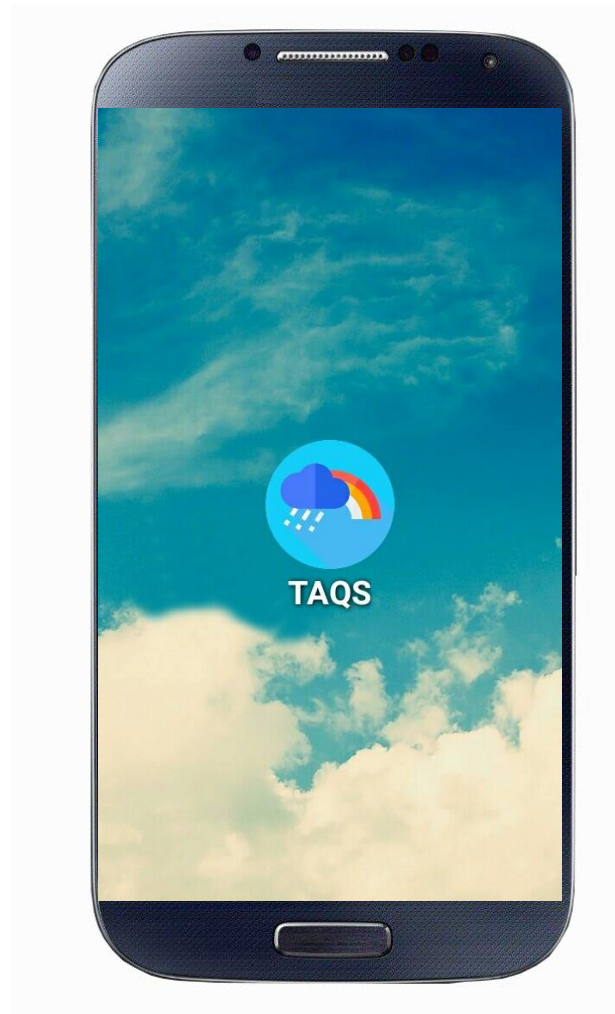


Android
Studio



Présentation of Interfaces:

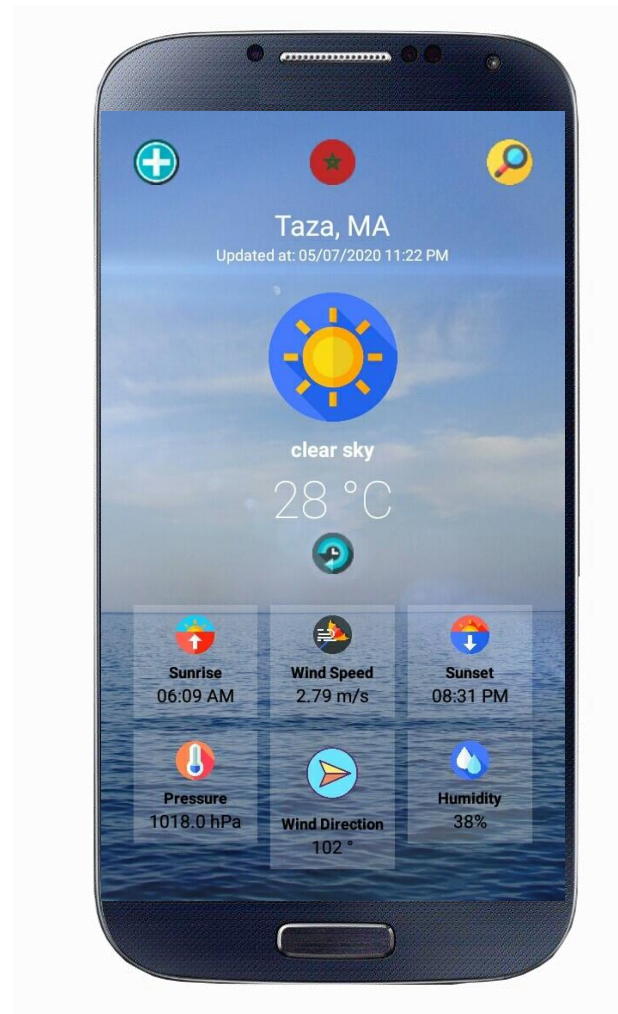
Splash Screen:





Présentation of Interfaces:

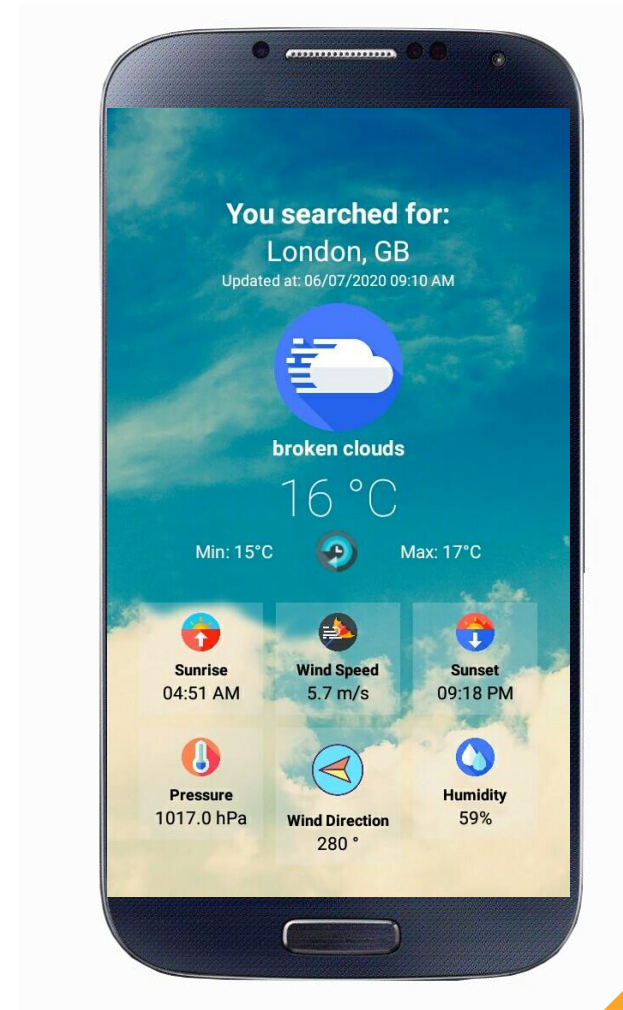
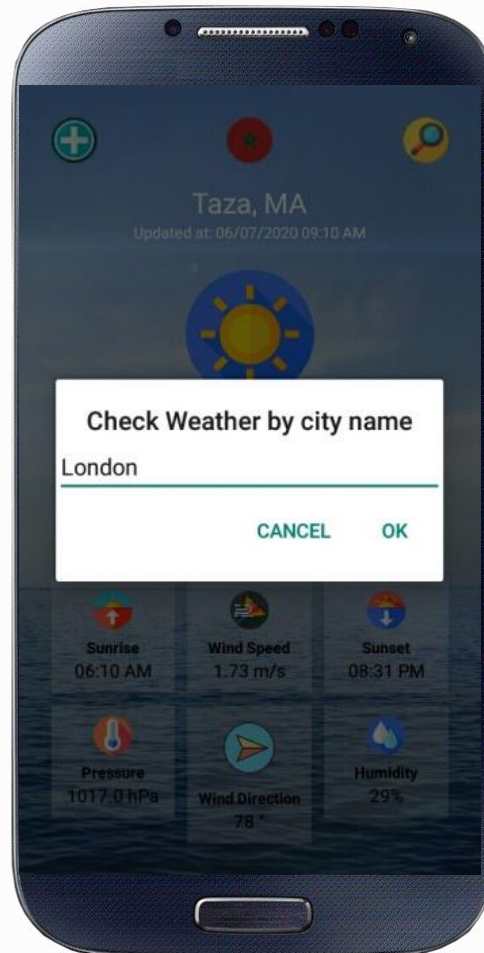
Main Screen:





Présentation of Interfaces:

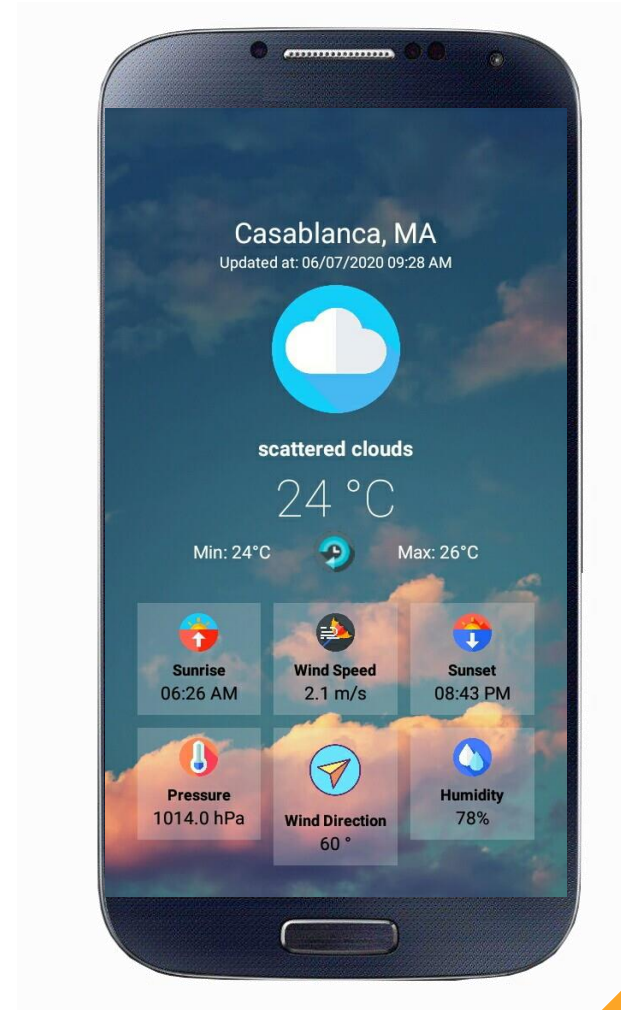
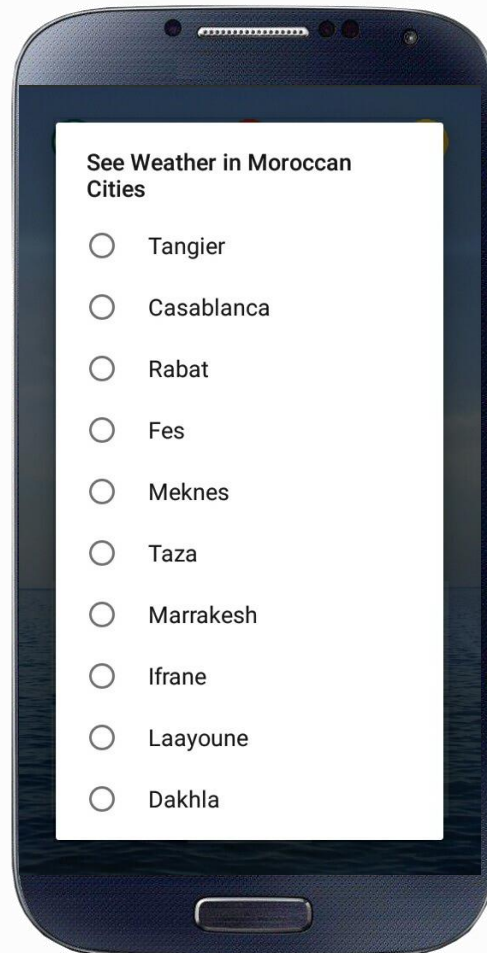
City Search Screen:





Présentation of Interfaces:

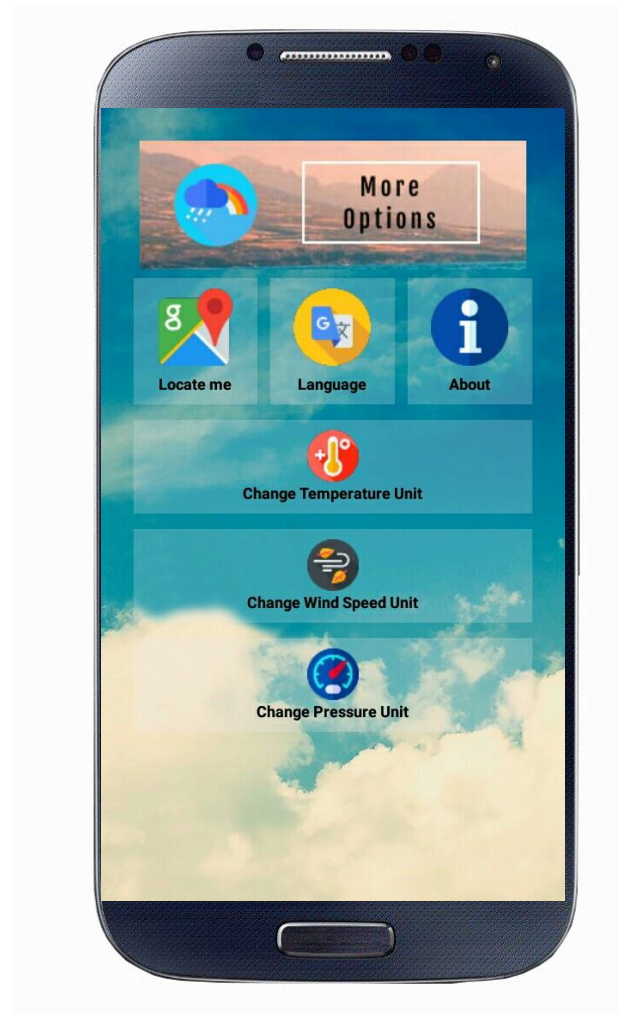
City Search Screen:





Présentation of Interfaces:

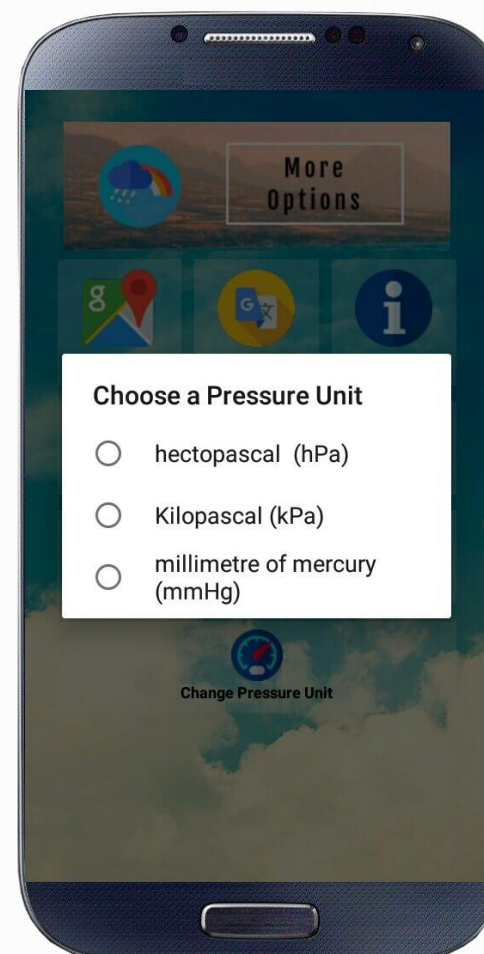
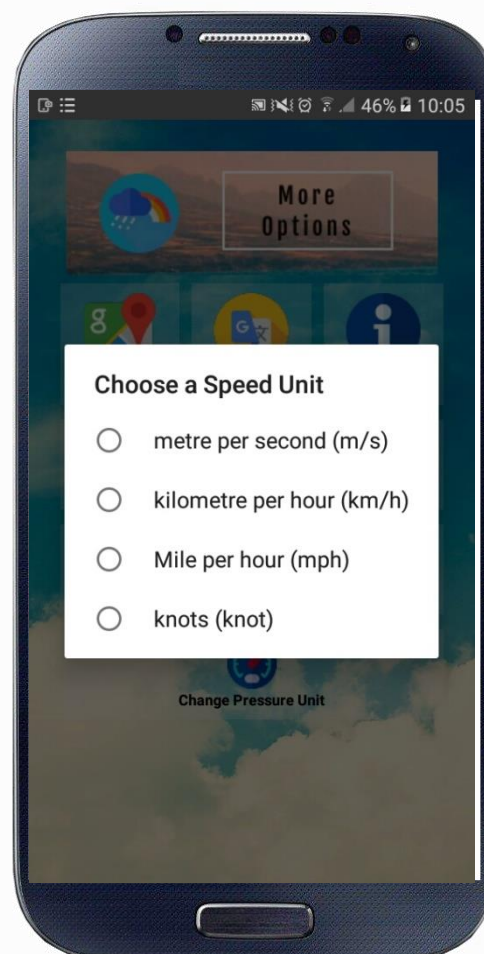
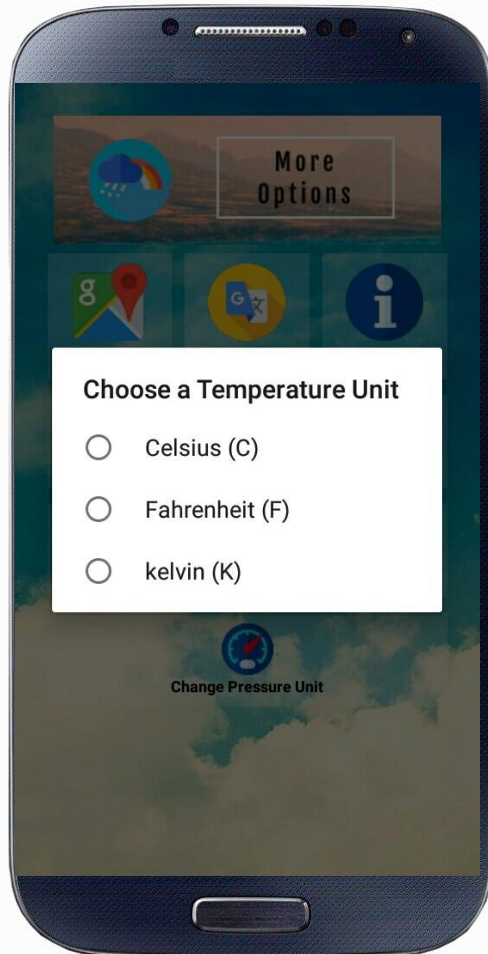
More Options Screen:





Présentation of Interfaces:

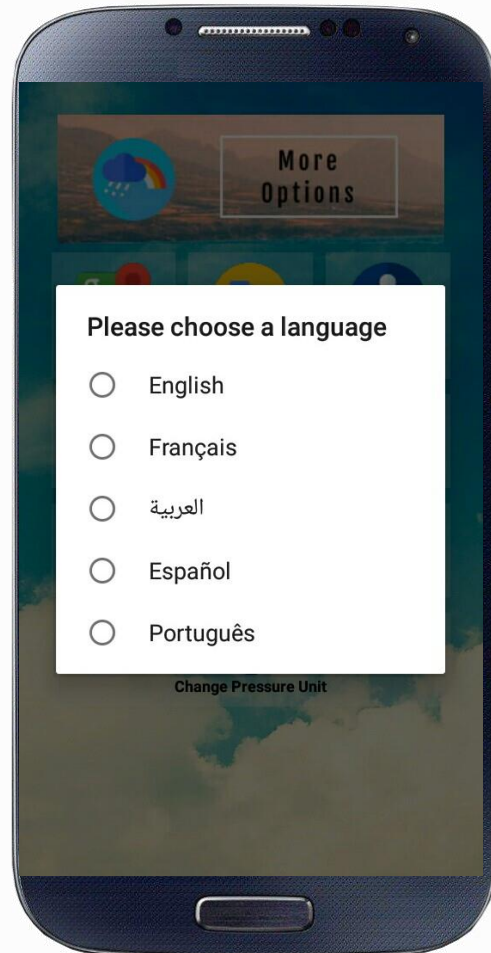
More Options Screen: Change Units





Présentation of Interfaces:

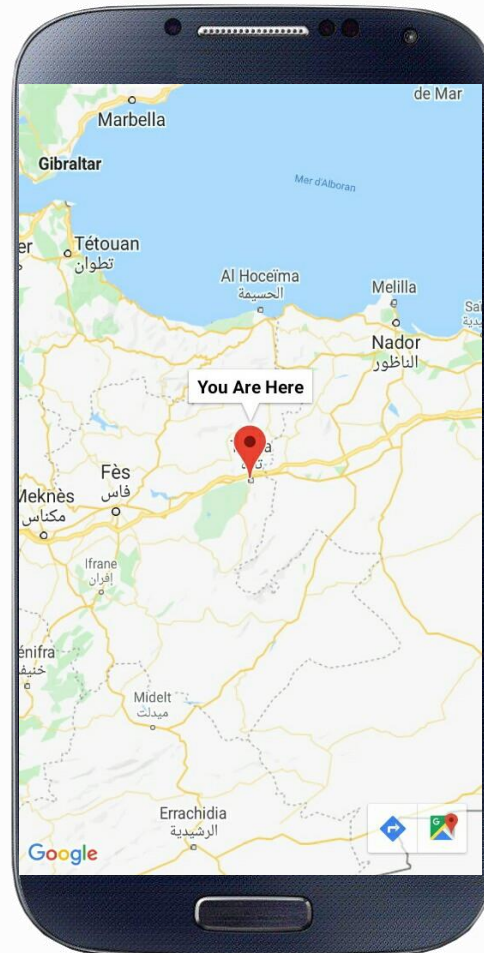
More Options Screen: Change Language





Présentation of Interfaces:

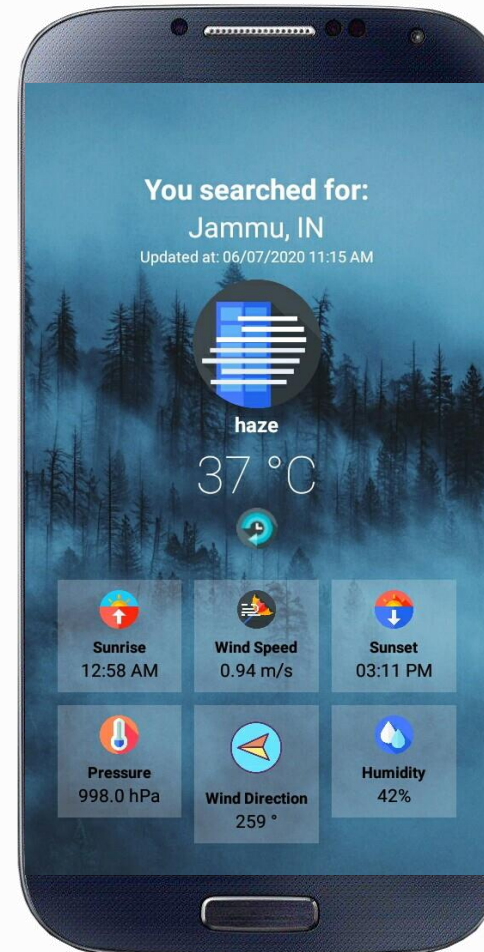
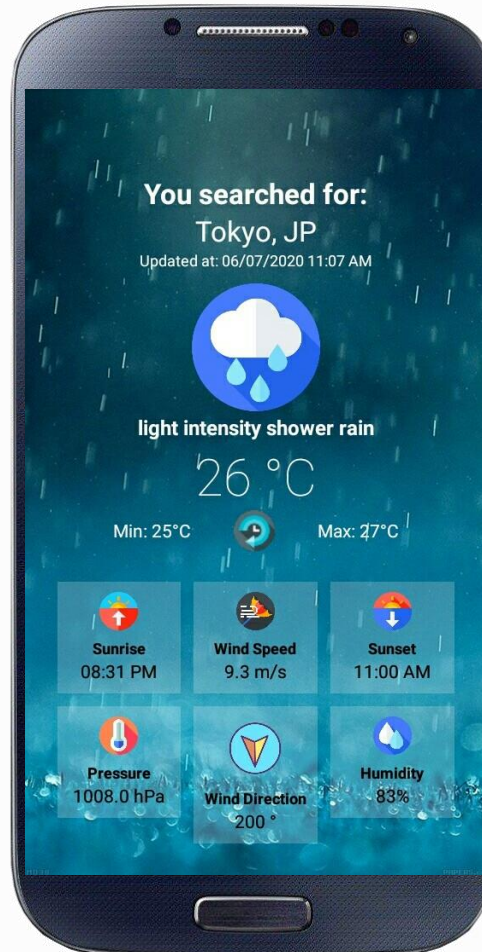
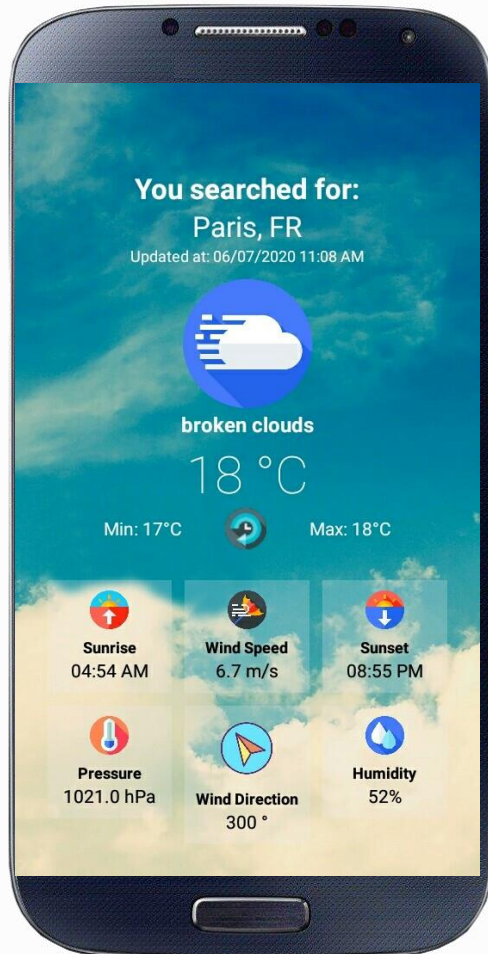
More Options Screen: See location on Map





Présentation of Interfaces:

Changing Backgrounds:



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Conclusion



Conclusion and Perspectives:

This Project allowed me to:

- Practice my theoretical knowledge.
- Develop a useful and Application.
- Discover Android operating System.

Future Perspectives:

- See weather forecast for 1 or 2 weeks.
- See temperature, humidity, pressure and wind speed graphs based on historical data.
- Add animated backgrounds.
- Add notifications.



Webography:

- <https://www.bankmycell.com/blog/how-many-phones-are-in-the-world>
- <https://www.mulesoft.com/resources/api/what-is-an-api>



**Thanks for your
Attention**