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# **ABSTRACT**

This article presents the different stages and activities during the user-centered designing process for the development of the mobile application "FMaps", it includes a brief description of them.



### **PROYECT**

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The project is an application that provides a realtime map of the university so that students, teachers, and visitors can access the location of the classrooms, library, teacher classrooms, administration locations, and other points. of interest in the university.

The development of an interactive application for the Faculty of Mathematics is justified by the convenience of helping new students and visitors to become familiar with the campus, avoiding loss of time and anguish.

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### **PROCESS**

The project development process was divided into several phases. In the project definition phase, the problem was identified and a theoretical framework was designed based on previous research. Then, in the requirements engineering phase, stakeholders identified and requirements were elicited through various techniques. Next, in the GUI design phase, prototypes of the interface were created taking into account the required functionalities and heuristic design techniques. With the GUI design defined, we moved to the prototype phase development of the application, where the prototype was replicated pixel by pixel.

# FMaps graphic interfaces













# **KLM** test

Frame	Action	Widget/Device
Login	Look At	ta sicei (Widget 1)
Login	Think for 1.200 s	
Login	Move and Tap	ta sicei (Widget 1)
Inicio de sesión	Look At	Usuario (Widget 4)
Inicio de sesión	Think for 1.200 s	
Inicio de sesión	Think for 10.000 s	
Inicio de sesión	Look At	Contraseña (Widget 2)
Inicio de sesión	Think for 10.000 s	
Inicio de sesión	Look At	Captcha (Widget 1)
Inicio de sesión	Move and Tap	Entrar (Widget 5)
Carga	Think for 1.200 s	
Carga	Move and Tap	Pantalla de carga (Widget 1)
Selección	Look At	e salón (Widget 1)
Selección	Think for 1.200 s	
Selección	Look At	Item 1 (Widget 6)
Selección	Move and Tap	Item 1 (Widget 6)
Guía auto	Think for 30.000 s	
Guía auto	Move and Hover	Mapa interactivo (Widget 1)
Llegada	Look At	mapa interactivo (Widget 1)
Llegada	Think for 1.200 s	
Llegada		

Once the functional prototype was created, usability tests were carried out to obtain user feedback and perform iterations application. Techniques such as the decomposition of tasks into individual actions and the definition of objectives, operators, methods and selection rules were used.

The results of the usability tests showed that the interface met the needs of the users and was intuitive. However, further testing was recommended in the future to validate these results. In general, the students showed interest in using the application, especially those who were familiar with technological tools and navigation applications.

# **Usability test results**

