
Master thesis : Mobile application and software development at Foot 24-7

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UNIVERSITY OF LIÈGE - FACULTY OF APPLIED SCIENCES

Civil engineering - Master in Computer Science

Mobile application and software development at Foot 24-7

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This Master thesis addresses the development and improvement of the Foot 24-7 mobile application, an application which connects amateur footballers together to facilitate the practice and organisation of football games.

Nowadays, mobile applications have become an integral part of our daily lives. Statistically speaking, 4 out of 5 people in the world own a smartphone. On top of that, the average daily time people spend on their smartphone is over 3 hours and most of this time is spent using an application. To appraise the importance of mobile applications in today's industry, we can mention that the number of mobile application downloads worldwide reached 230 billion in 2021 and this number is only increasing over time. It is therefore quite clear that the mobile application industry is thriving and will continue to do so in the coming years.

On the other hand, there is no denying the importance of football in our modern societies. As a matter of fact, football is the most played and followed sport in the world. As a result, almost everyone wants to play football. However, for many football enthusiasts, the practice of this sport is sometimes very difficult: lack of partners, difficulties in finding an available pitch or venue, last-minute withdrawals, etc.

In this context, the Foot 24-7 mobile application provides a solution to all of these shortcomings that any football fan knows only too well. In a continuous effort to enhance the user experience on their mobile application, Foot 24-7 is constantly seeking to improve their application in order to meet their users' expectations. Consequently, the purpose of this thesis was to research, design and implement the most relevant improvements to the Foot 24-7 mobile application.

This thesis addressed the following development tasks using well-known application development technologies such as the **Flutter** framework, the **Django** framework and the **Django REST** framework: debugging of the original application, development of player and team rating systems, addition of the possibility to create team games, access to a user's personal teams, redesign of the whole invitation system, addition of the possibility to edit a created game, improvement of the bottom navigation bar with notifications as well as the development of a brand new access dedicated to referees.

The work carried out during this Master thesis allowed to improve the user experience on the Foot 24-7 mobile application and will hopefully help it to reach an increasingly conquered public.