**Summary**

Master degree thesis

FMI – SU, “Sv. Kliment Ohridski”

Department “Information Technology”

Design and Implementation of a Multiplatform Mobile System

About Applying Agile Methodologies in Open Source Projects

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**Keywords:** Android, iOS, NativeScript, ReactNative, Xamarin, Open Source, Scrum, Kanban.

**Annotation:**

The thesis makes an introduction in the agile methodologies of Scrum and Kanban, their application at work on open source project hosted on GitHub. The thesis makes an overview on some existing tooling supporting Scrum and Kanban in GitHub: HuBoard, Aha!, TeamPule. The lack of mobile application in all of them is the driver for the development of the current thesis.

The mobile application will target various users of different mobile operating systems – Android and iOS. The thesis makes an overview on some platforms for cross-platform mobile development: NativeScript, ReactNative, Xamarin.

The designed mobile application is based on NativeScript and Angular 2. It analyzes the use case scenarios, and the functionality such application must have. The integration with the existing infrastructure of the NativeScript team is taken into account: HuBoard, Aha!, Travis, Jenkins.

The minimum viable product is developed. The netwok traffic, CPU, GPU and FPS are measured. Points for improvement and found.

In conclusion the thesis elaborates on functionality that has to be further implemented to make the application competitive on the market. Points for further development are given.