# INFORMATICS INSTITUTE OF TECHNOLOGY
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**BEng (Hons) Software Engineering**

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**Final Year Project Report**

For

## QProD

## System for measuring software quality and developer productivity

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## Abstract

Nowadays the world is running on software. The software is using everywhere such as embedded systems or the controls systems. Mobile phones, new model cars using the software. Software is there in every business. So the quality of the software really important because low quality can make trouble. The software quality depends on the requirements of the users.

A good developer will develop a software with good quality. The developer should have a good productivity too. In order to talk before the software productivity there is a need to know what software is. Software is a computer program which comprised of lines of codes. When we are developing the software there is a need to find the productivity of the software. The common definition for Software productivity as the ratio between the functional values of software produced to the labor and expense of producing it.

There are many techniques help to measure the productivity of the software such as lines of code, function points under the metrics method. The quality of the software is depends on developers' ability. Expert developers can deliver the software in short time but the quality of the software should be measured. There should be good technologies to be provided to the developers while working. Nowadays the productivity of the developers is measured using the number of defects. If the number of the defects are high then the quality of the code is low. Also the productivity is measured using the time which was taken to deliver the software.

The IT organizations always expect to deliver the good quality solutions to get the leading place in the market. The quality of the software is depends on the productivity of the developers and the quality of the code. It would be great if there is a system to measure the code quality and the developer productivity and give the suggestions to fix the issues while developing the software.

The purpose of the project is to develop a system to measure the code quality and the developer productivity.The solution will motivate the developers to follow the best practice in programming and helps the lead to monitor the overall performance and productivity of the team and also it will help the developers to communicate with the other members of the team regarding the violations and fix them.



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