

Measuring Functionality in different IoT applications using Function Point Analysis.

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March 29, 2023

Abstract

For estimating cost and effort of any software product, measuring functionality of that application is an essential aspect for deciding its value. However, IoT applications are not completely equivalent to software solutions due to the inherent requirement of hardware components. Also, as there has been a surge in development of IoT applications, measuring the application's cost and effort is required. This article applied the traditional measurement methods for estimating the appropriateness of an IoT solution before its adoption. In this article, we have made an attempt to measure the functionality of an IoT system using function point count technique (FPC). For evaluating it, all the essential characteristics of typical IoT applications were considered. Five different IoT applications namely IoT based healthcare, smart environment monitoring, IoT based inventory management, smart home security and smart home automation were considered and FPC values for all these applications were calculated. The different values of function points directly could be used to infer the applicability of the product.

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