

I. INTRODUCTION

Information technology is growing very fast nowadays. This rapidly growing information technology can make it easy for companies to get the information needed quickly. Information Technology has a critical and strategic role [1]. Information technology can make monitoring more efficient [2]. One of the utilizations of information technology, namely technology for monitoring project performance in companies. PT Gerbang Sinergi Prima Bandung (GSP) is a pension fund company which is one of the subsidiaries of the Pension Fund of PT PLN (Persero) in the ICT sector. Based on the results of interviews that have been carried out with the company, there are problems related to project monitoring, which still needs to be done with conventional ways such as business project monitoring using Microsoft Excel. So, the making of this admin dashboard is urgent to facilitate the monitoring of business projects that will and will have been carried out by GSP.

Business Project Monitoring performance can be done in various ways, including making a monitoring dashboard. A monitoring dashboard is an information system that can provide information about the performance of a business project in a company [3]. Business project monitoring in real-time on the monitoring dashboard can overcome delays in project work [4]. During monitoring dashboard development, predicting changes is difficult as needs evolve. One method that can adapt to changes or additions to the needs of the monitoring dashboard is the Agile development method with the Scrum pattern [5]. With Scrum, developers can plan and work on business projects more flexibly when changes must be made during the work [6]. Based on study [5], the Scrum method makes it very easy for developers to get feedback from the user on the features that have been built due to its flexibility so that the development process does not take a long time to complete.

Dashboard development also requires a model to facilitate developers. In this study, the model used is the Unified Modeling Language (UML). UML is a standard language that is quite popular for describing, designing, and analyzing systems on dashboards [7]. Scenarios when users use the system built can also be addressed with UML [8]. There are several types of UML, such as class diagrams, use case diagrams and entity relationship diagrams. Each diagram has a different function in describing the system being used.

Testing for the admin dashboard backend is an essential step in product development. Testing ensures functionality and non-functionality related to the admin dashboard backend that has been developed [9]. The tested admin dashboard backend requires in-depth testing techniques to make the results obtained promising [10]. This study uses three types of testing, namely black-box testing, unit testing, and performance testing. Black-box testing aims to test the functionality of the backend dashboard admin built [11]. Then, unit testing aims to test whether there are errors in the API that has been built [12]. Performance testing aims to test the software's performance towards user requests on the backend admin dashboard [13].

This study aims to discuss the backend development of the admin dashboard that will be used to monitor business projects at GSP using the Scrum method. In addition, this study will also analyze the quality of the backend admin dashboard development results using several tests. In addition, this study has differences with other studies in the testing of dashboards that have been made. This dashboard will be tested with three tests, which are Black-Box Testing, Unit Testing, and Performance Testing.