



# Implementing Recommendation Application Service Information Systems for Candidate Workers Needs in the Covid-19 Pandemic

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**Abstract.** Every fresh graduate will need and find a job. However, it isn't easy to get a job, especially when workers are mostly done online. Thus, prospective workers need a variety of tools to assist them in their work, such as applications used for works. Therefore, this case aims to create a web-based information system to help their work. It is expected to improve the soft skills and productivity of workers. The results of the application recommendation information are obtained from the survey form in which all questions are related to the needs of the website users of the application. The information is then directly processed by the web system, and the output will get application recommendations along with usage information, info features, and platforms that can be used. The method used in this study includes the analysis phase starting from gathering information and making ideas, followed by making preliminary designs to making prototypes, testing, and evaluating implementation. Based on the testing results, the recommendation can help prospective workers increase knowledge about the right application to be used on the work to be done and prevent the use of less efficiency. This research concludes that with the help of recommendation, application services can help prevent workers from using applications that are less efficient for their work and increase soft skills and productivity.

**Keywords:** Application Service, Information System, Candidate Workers Need

## 1. Introduction

Information systems might be defined as a group of interrelated components working together to gather, store, disseminate, and process information to support higher cognitive processes, coordination, control, analysis, and visualization in a company [1]. It contains information about things with the environment surrounding them. It has been shaped into a form that is useful for human beings [1]. Benefits from utilizing information systems are the increase of productivity and efficiency in information exchanges, enhance the standard quality of service to the customer, and cost reduction. A web-based information system could be defined as a technology for sending information to clients or users. The technology is used to

publish and maintain data by the Hypertext Transfer Protocol (HTTP) principle. A web-based information system also could be defined as a combination of 1 or more web apps, specific functionality-oriented components, and needs. A web browser is used as a frontend and backend for the system and database [2]. A website may be called a set of HyperText Markup Language (HTML) documents called individual web pages via one Uniform Resource Locator (URL) on the website with a client like an internet browser. Alongside classic content like texts, the website also can include media like videos, photos, and miscellaneous files.

Furthermore, web apps could do a range of opportunities for users to interact with the website. The pages of a website are defined as web pages. The choice terms include homepage or internet site [2]. A survey could be simply a data collection tool for bringing out survey research that means collecting information about the actions, characteristics, or a large group of people's opinions [3]. Information service is an activity of understanding individuals who are concerned about various things needed to carry out a task or activity or to determine the direction of a desired goal or plan [4].

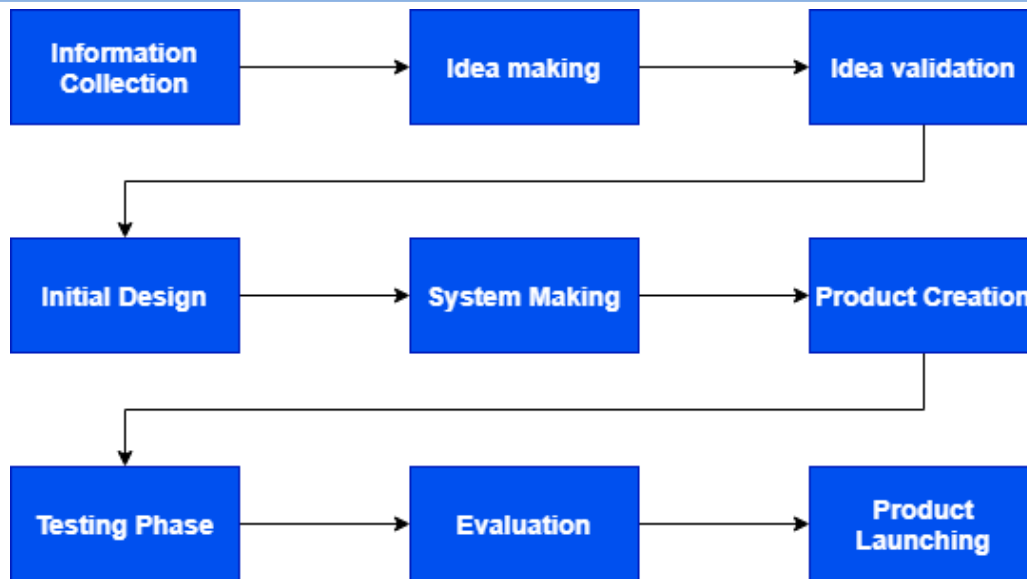
In a current competitive economy, there are a few things that have been constant when creating and maintaining high performance in terms of how the work system [5]. It could have been affected by Covid-19. A web-based information system highly contributes to the employees' performance [6, 7]. A web-based information system is a web-based application. This application also it there is already a database for managing data [8]. Because it has a significant contribution to employee performance in an organization, it is increasingly needed to access the effectiveness of web-based information systems [9]. To make our web application we used Model/View/Controller (MVC) as the model for the website, the MVC design pattern is very useful for architecting interactive software systems [10]. MVC has a plan to divide the system into three different layers in charge of interface control logic and data and make MVC access architecture widely accepted for corporation software development [11,12].

Therefore, this case aims to create a web-based information system which is a recommendation application service wherein various application recommendations can be used by workers to help their work and is expected to improve the soft skills and productivity. The method used in this study includes the analysis phase starting from gathering information and making ideas, followed by making a draft, beginning to making prototypes, and finally testing and evaluating the implementation.

## **2. Method**

### **2.1 Development Method**

Development method that will be implemented is a series of stages arranged systematically. There are about nine development steps for the system that will be planned and designed. Figure 1 below is a description of the flow map.



**Figure 1.** System Development Method.

The first step is collecting information related to the problem we have to solve. It can be in several observations or analyses according to several sources about how the problem occurs with real data. When collecting information is completed, we are stepping into making an idea or solution or called "Idea making". Ideas are to be made from problems that have been defined.

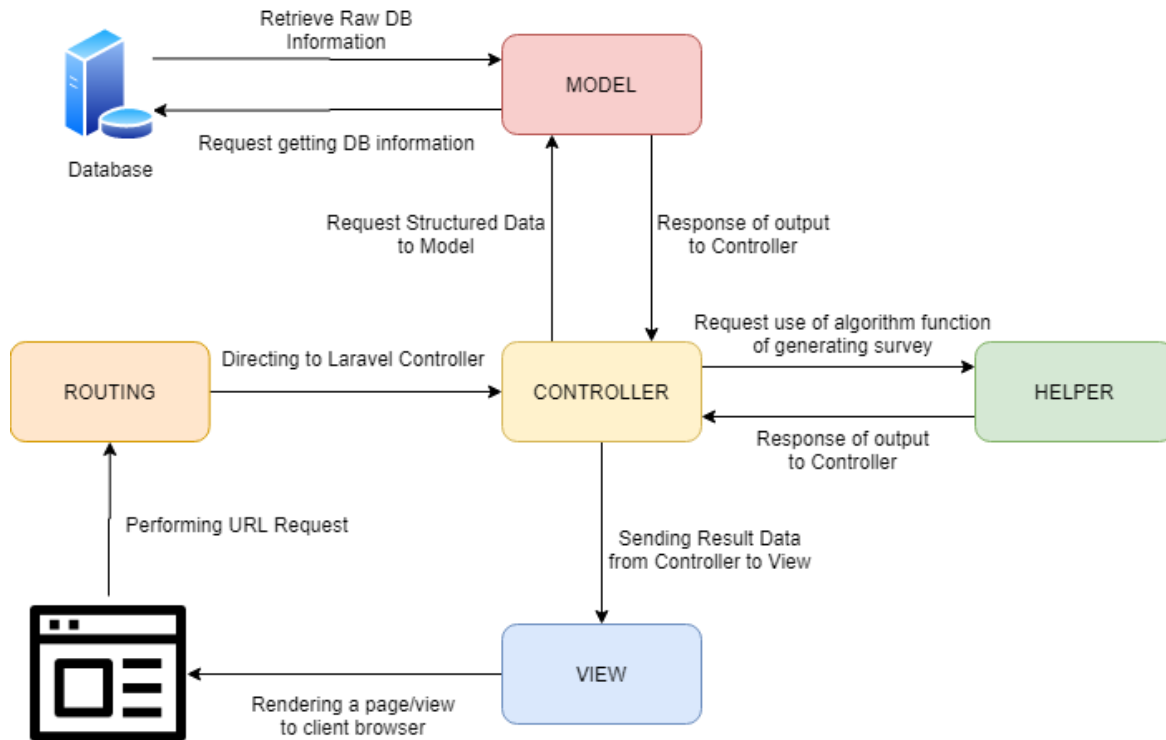
The ideas that have been made will be verified or validated if the ideas can be made and used for prospective members. It will bring into next step is idea validation. Ideas that succeed are valid will continue to the next stage, namely making a system related to tools and the web. The design that will be made comes from valid/verified ideas, starting from making aspects of functionality and non-functional requirements applied to the product.

We are creating an information system work first to see how to convenient information to users and make an interaction analysis of the existing design to make the task/work in the next step. Making web prototypes, product tools, and curriculum materials will require a lot of time to finish. The process will make the final product launch into a specific market.

### 3. Results and Discussion

#### 3.1 Designing Web System & Analysis of the current system

To show the routing of website system, there is Figure 2 that showed the possible routes of websites with the website.



**Figure 2.** Route of Website MVC Framework.

Figure 2 shows the routing of the website backend system. The websites were created with the web framework called Laravel that could interact with the internet browser, sends URL requests to the webserver and forwards it to the system. The routing system will process the a few requests and forward to each subclass system and function according to defined URL request. In the Controller, communication/bridging with model and helper occurs whenever database is required. The Controller may also request a primary function to generate a report from the inputs in Controller itself. The Controller will render a page or view site, which will be compiled into HTML code and sending back to the browser to show the webpage.

### 3.2 Current System Flow map

To figure out of how the website will work. We need to design a flow map that will be implemented to the website. The flow chart will explain the sequence of procedures in the system described the flow system from one action to another (See Figure 3).

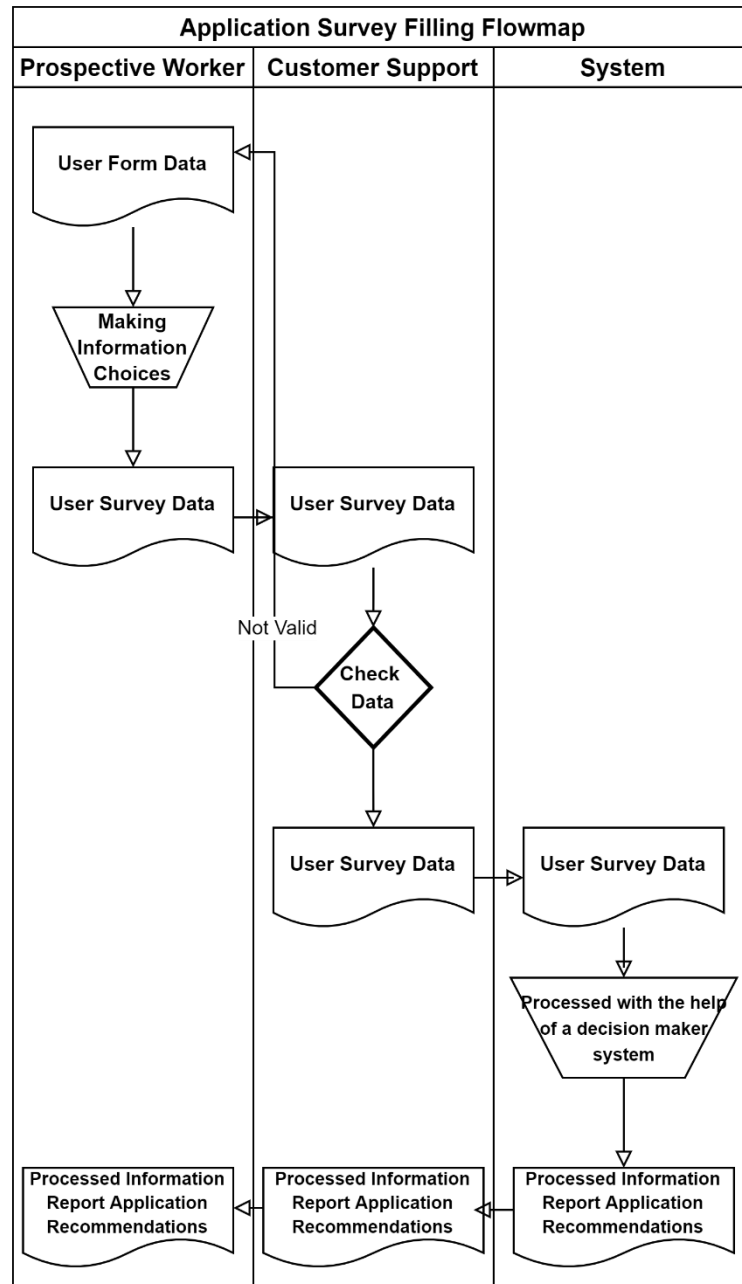


Figure 3. Flow map of current Recommendation Application Information System.

### 3.3 Evaluation of Current System

From the results of the analysis and evaluation of the running system, it was found that every customer needs a software recommendation in their workplace.

From these problems, a solution is needed, namely by using the survey form that the author has provided. The formulation consists of various inputs that will produce a software recommendation report.

#### 4. Conclusion

Building this web app could help recommend application services can help prevent workers from using applications that are less efficient for their work and increase soft skills and productivity by using applications suitable for their work. It potentially could help other things such as finding a suitable job with suitable software and help contribute during pandemic COVID-19 for as information service.

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