Python programming & practices

ROAD DESIGN

SUPPORTER

Proposal

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1. Introduction

1) Background

Modern society has achieved tremendous growth through rapid industrialization and thr birth of the fourth industry. Technologies in various fields such as transportation, IT, medicine, and science are developing day by day. It makes our lives more convenient and safe. In particular, the development of transportation and roads made the movement of resources convenient and led to active exchanges between local residents. This is one of the factors that greatly contributed to the rapid development of the industry. In addition, since human's desire for convenience is endless, the development of autonomous driving through artificial intelligence is currently underway. As time goes by, the amount of data we have increases, and it is almost impossible for us humans to memorize all these contents. That's why we keep information and use it through searches. The road and transportation sectors, like other fields, are making endless progress. Recently, as artificial intelligence and autonomous driving have begun to be introduced, new standards for roads have been proposed. In addition, many factors such as the width of the road, the radius of the curve, and the design reference speed of the road are considered in the process of designing the road. In this situation, it is inefficient for us to memorize all those vast amounts of data Because we have Python. We need programs that can easily manage vast amounts of data used in the process of designing roads. I'm going to make this through Python.

2) Project goal

Data on road design standards are analyzed and made into data. This can be referenced through simple keyword input when necessary and helps designers

understand through image search. In addition, it forms data on frequently sought content through the storage of search records and helps to use easy keywords easily. Lastly, for the easy use of useful information obtained from using the program, I produce a program that can send the contents I organized by e-mail. That is the goal of this project.

3) Differences from existing programs

Searching for documents and finding data through keywords is solved by our search engines. However, what I felt while studying civil engineering was that the specialized contents such as roads, traffic, and structures were only guidelines issued by government agencies. To utilize this, it is necessary to access the homepage, read the pdf, read major books and read standard guidelines directly. I had to find each one myself. I have never experienced a database management program focused on the road field. So I'm going to make it myself.

2. Functional Requirement

1) Design Criteria Search Engine

- Recommend highly relevant content when entering keywords on road design criteria.

2) Image Search Engine

- Improve understanding and convenience through image output such as tables and charts when entering keywords related to road design criteria.

3) Search History Retention Function

- Store search history to make it easy for users to see and use.

4) Data mail transfer function

- Provide the ability to mail user notes from the application

3. Schedule

업무	11/3	11/10	12/1	12/15
제안서 작성	----------->			
데이터 파일 생성	-->			
기능 1	-->			
기능 2	-->			
기능 3	-->			
기능 4	------------------------------->			
기능 향상				-------------->