



TEAM 2

김진환
배지현
이민영
이정우
정미서

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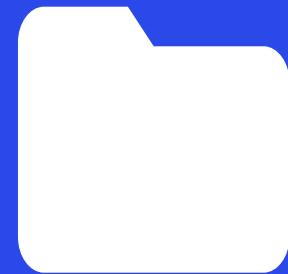
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01_Overview



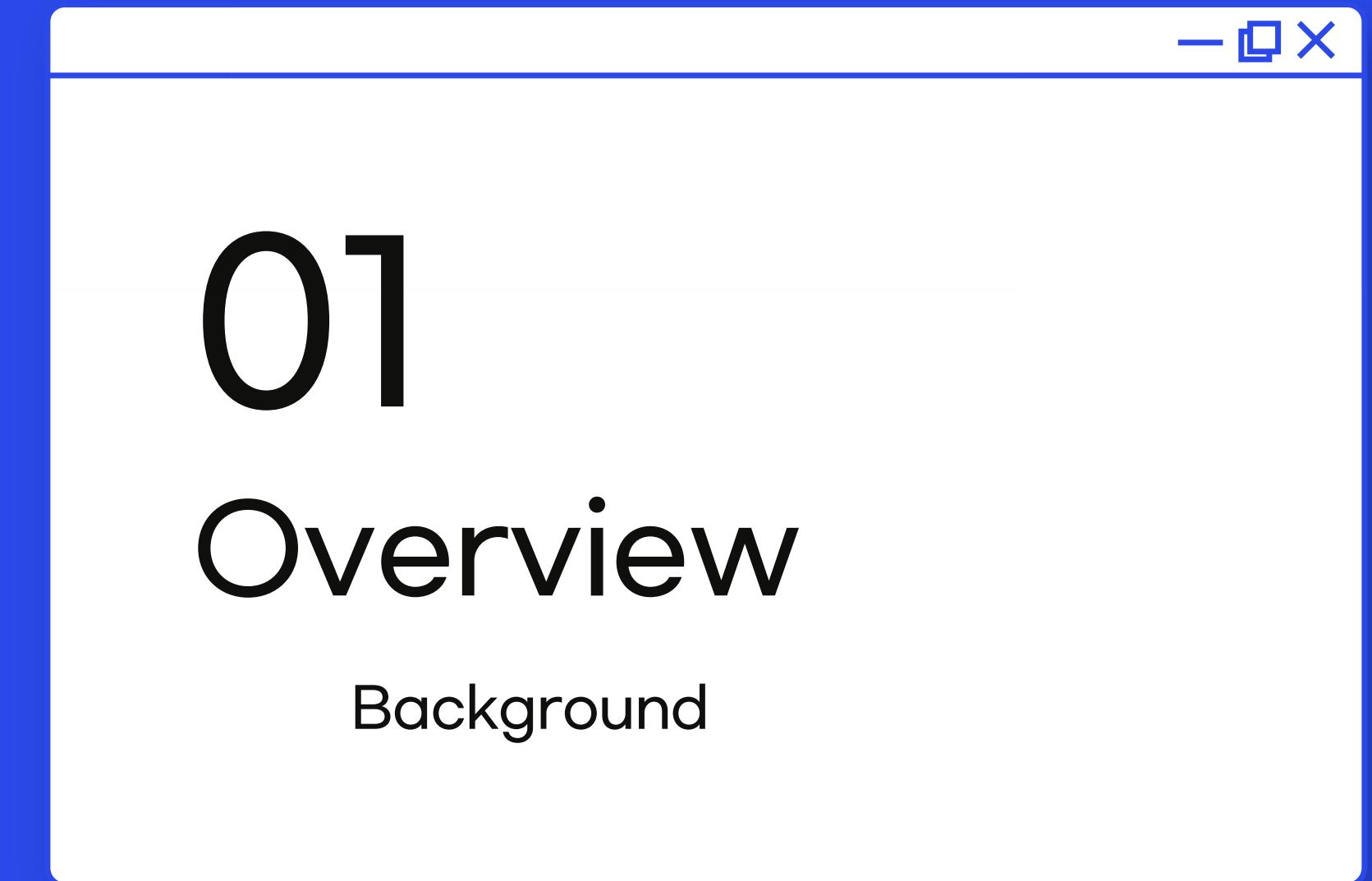
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Overview

Background

Skku Students should be used to web crawling using python!

01. Why university teach Programming?

02. Why Python?

03. Why Web Crawling?

Task
01

Task
02

Task
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01 Why university teach programming?

Universities are aware of importance of SW education

There is increasing demand for SW labor

SKKU students should get used to programming

Increasing demand for software labor!



Increasing demand for Python!

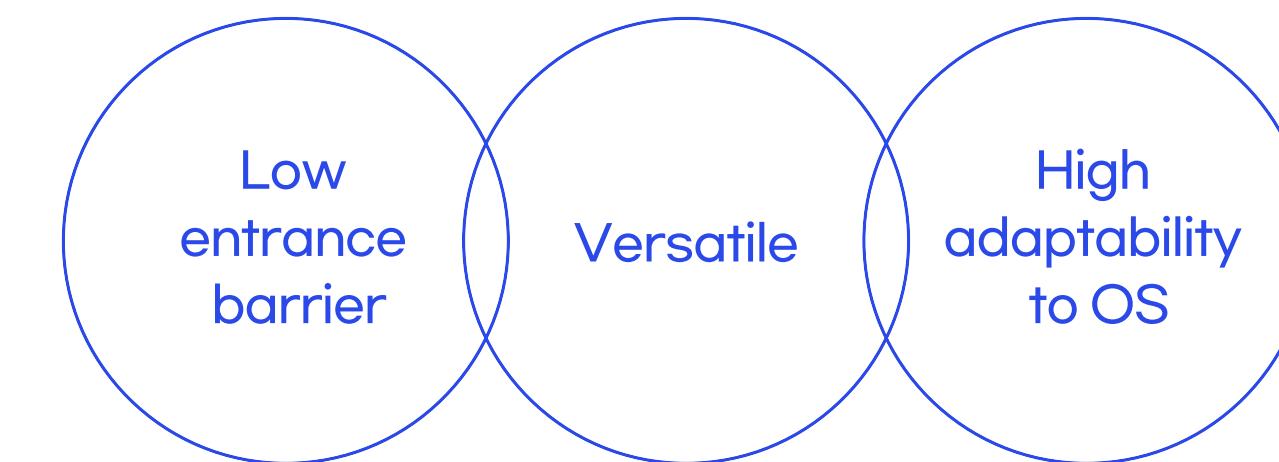
02 Why Python?

Python ranked 3rd place in TIOBE index

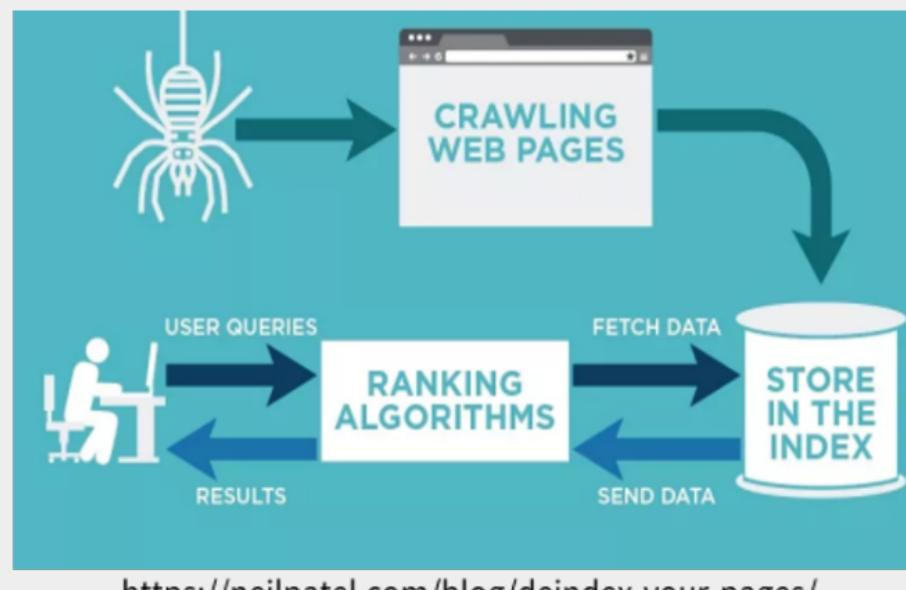
Rating of C and Java has fallen compared to last year

SKKU students should get used to programming with python

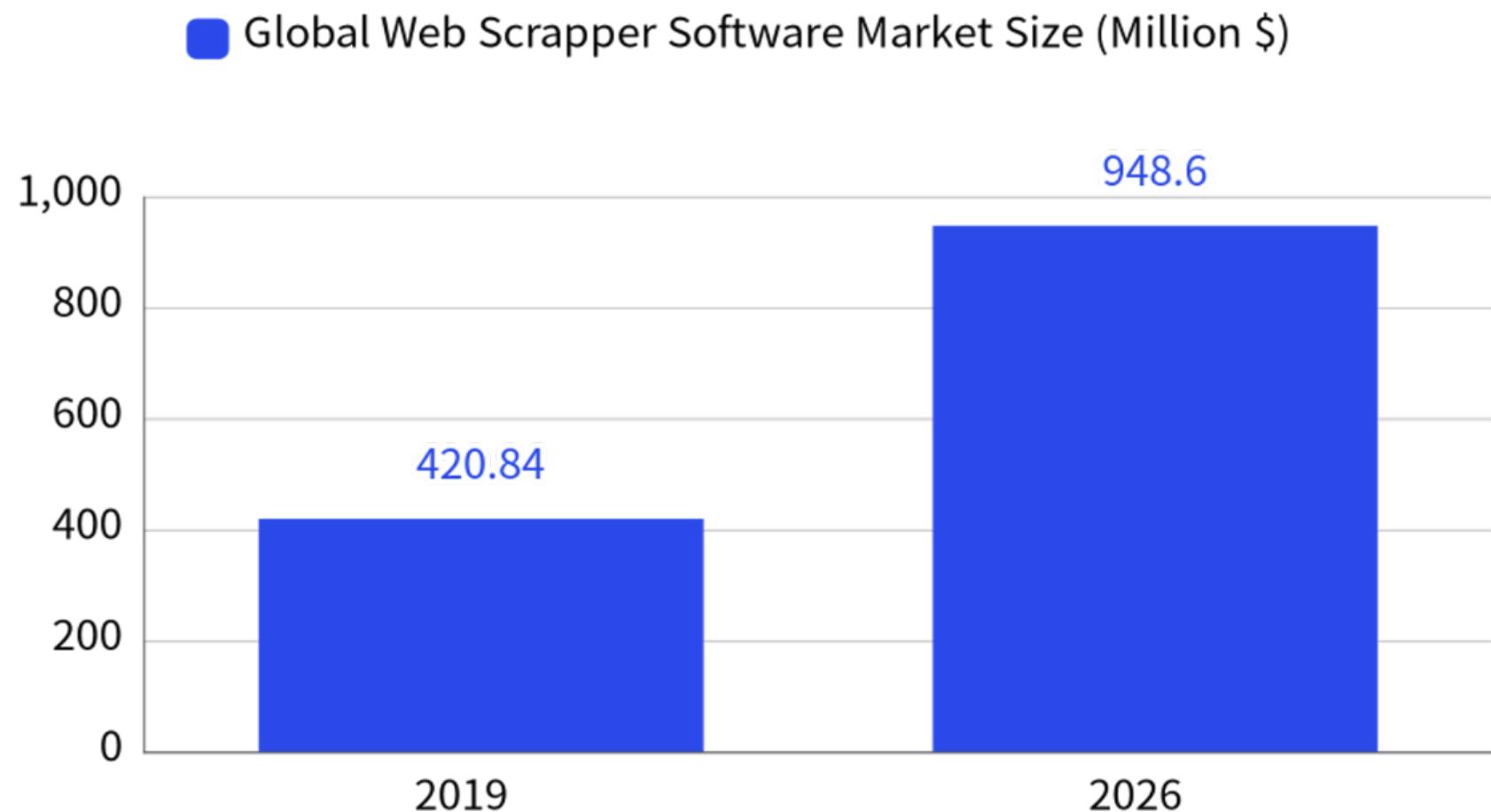
Jul 2021	Jul 2020	Change	Programming Language	Ratings	Change
1	1		C	11.62%	-4.83%
2	2		Java	11.17%	-3.93%
3	3		Python	10.95%	+1.86%
4	4		C++	8.01%	+1.80%
5	5		C#	4.83%	-0.42%
6	6		Visual Basic	4.50%	-0.73%
7	7		JavaScript	2.71%	+0.23%
8	9	▲	PHP	2.58%	+0.68%
9	13	▲	Assembly language	2.40%	+1.46%
10	11	▲	SQL	1.53%	+0.13%



03 Why Web Crawling?

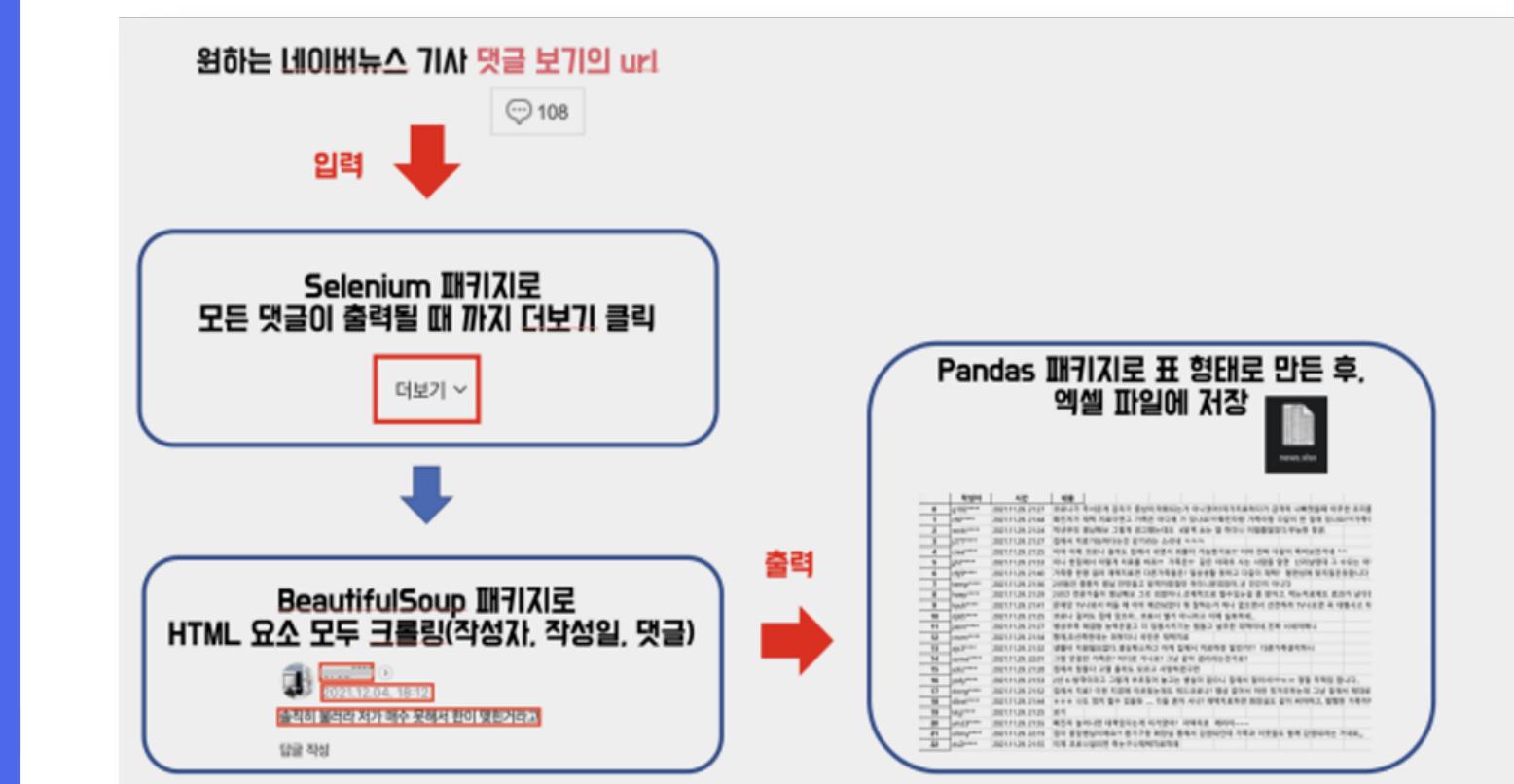
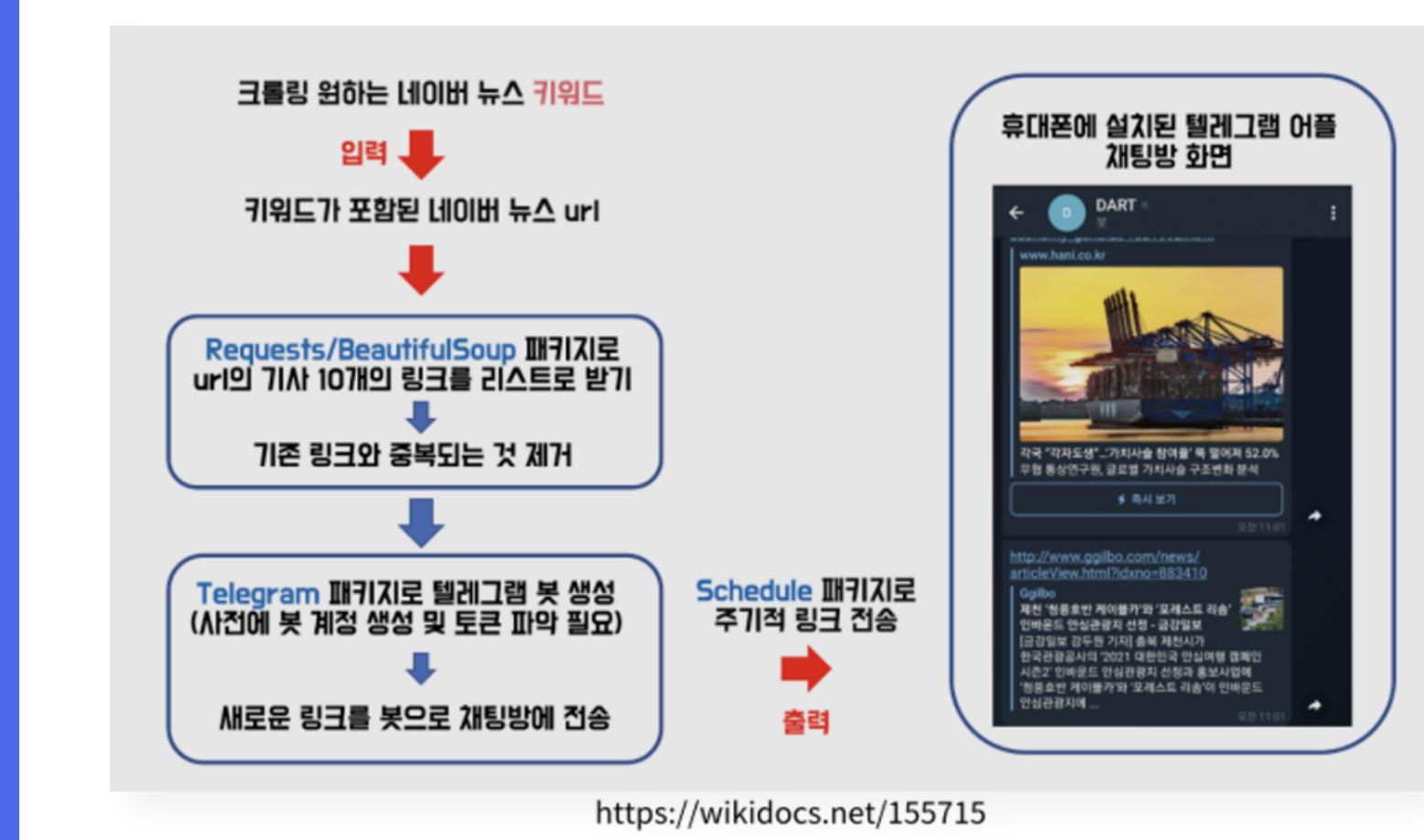


Make a bot
that searches and indexes
content on the internet



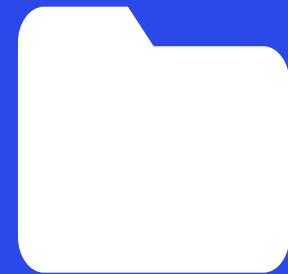
03 Why Web Crawling?

How can we use Web Crawling



일주일 간의 12 기간 동안 코로나 이슈의 기사건수와 감성분류 추이			
기간	시점	감성분류	건수 (비율)
1	2019-12-29 ~ 2020-01-04 (총 기사건수 = 167)	긍정 중립 부정	17 (10.2%) 122 (73.1%) 28 (16.8%)
2	2020-01-05 ~ 2020-01-11 (총 기사건수 = 962)	긍정 중립 부정	50 (5.2%) 709 (73.7%) 203 (21.2%)
3	2020-01-12 ~ 2020-01-18 (총 기사건수 = 973)	긍정 중립 부정	83 (8.5%) 588 (60.4%) 302 (31%)
4	2020-01-19 ~ 2020-01-25 (총 기사건수 = 11,185)	긍정 중립 부정	715 (6.4%) 8,668 (77.5%) 1,802 (16.1%)
5	2020-01-26 ~ 2020-02-01 (총 기사건수 = 23,679)	긍정 중립 부정	1,479 (6.2%) 19,518 (82.4%) 2,682 (11.3%)
6	2020-02-02 ~ 2020-02-08 (총 기사건수 = 21,742)	긍정 중립 부정	692 (3.2%) 18,543 (85.3%) 2,507 (11.5%)
7	2020-02-09 ~ 2020-02-15 (총 기사건수 = 15,795)	긍정 중립 부정	1,222 (7.7%) 13,107 (83%) 1,466 (9.3%)
8	2020-02-16 ~ 2020-02-22 (총 기사건수 = 17,954)	긍정 중립 부정	1,974 (11%) 14,574 (81.2%) 1,406 (7.8%)
9	2020-02-23 ~ 2020-02-29 (총 기사건수 = 18,867)	긍정 중립 부정	3,368 (17.9%) 14,241 (75.5%) 1,258 (6.7%)
10	2020-03-01 ~ 2020-03-07 (총 기사건수 = 18,757)	긍정 중립 부정	2,685 (14.3%) 14,595 (77.8%) 1,477 (7.9%)
11	2020-03-08 ~ 2020-03-14 (총 기사건수 = 21,794)	긍정 중립 부정	4,669 (21.4%) 15,643 (71.8%) 1,482 (6.8%)
12	2020-03-15 ~ 2020-03-21 (총 기사건수 = 29,878)	긍정 중립 부정	9,019 (30.2%) 19,631 (65.7%) 1,228 (4.1%)

https://brunch.co.kr/bflysoft1117/100



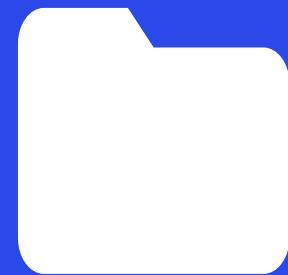
01_Overview



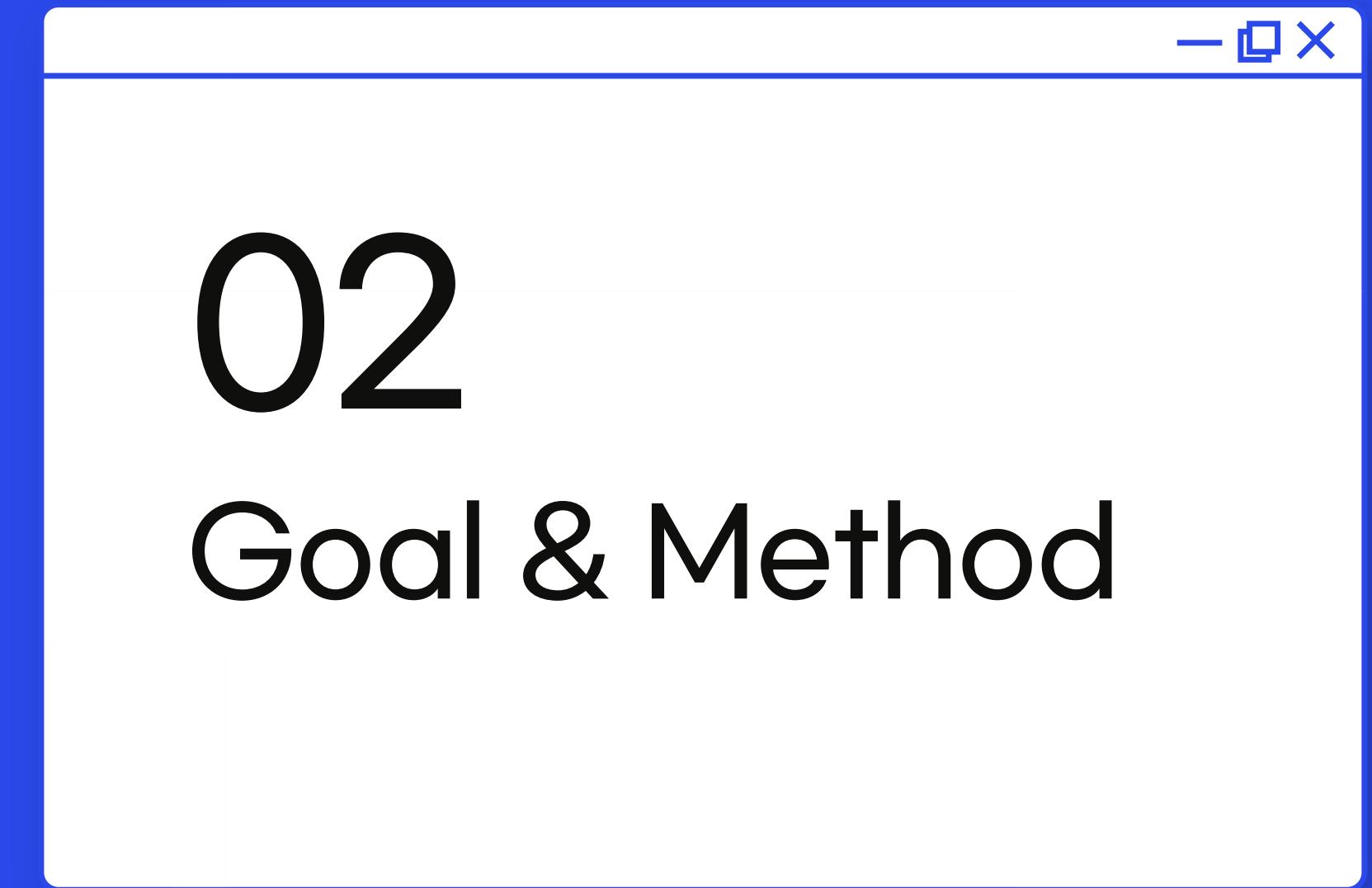
02_Goal & Method



03_Team & Strategy



04_Effects & Benefits



Market analysis

originality

The need for Python education and web crawlers is increasing, but learning Python through crawling is not systematized.

	Price	Encourage coding	Encourage coding crawler	Check result	Easy to use	Free from computing resources
Open resource	0	X	0	X	X	X
Free lecture	0	X	0	X	X	X
multicampus	high	△	0	X	X	X
inflearn	middle	△	0	X	X	X
Octoparse*	0	X	X	X	X	0
Groomlevel**	0	0	X	0	X	0
our homepage	0	0	0	0	0	0

Octoparse* is a website for crawling ,and Goormlevel** is a website for coding

Goal

- 1 **Building an algorithm that teaches python education**
- 2 **Increasing the programming ability of university students**
- 3 **Enabling users to easily see what to do for study**
- 4 **Providing a programming education server as first**
- 5 **Collecting information for coding education from customer**





Implementation method

Frontend

React

Tool : Figma, vscode

DB

MySQL

Backend

Spring

Tool: IntelliJ, Spring Boot,
Postman

Etc

Cooperation tool: git,
Notion
Version Control : Github,
SourceTree

Specific implementation

System

M

Make Contents

Setting the Curriculum, Assignment

M

Make Code Editor

Setting the Indentation, Symantic highlighting

S

Show The Result

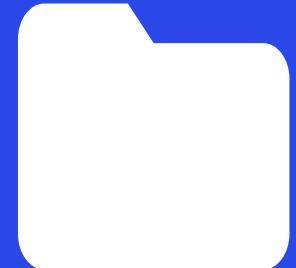
Source code evaluation, Output evaluation, Error notification

D

Design UI/UX

Easy to Read, Easy to Check Learning Process(Visualize)

D
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01_Overview



02_Goal & Method



03_Team & Plan



04_Effects & Benefits



The window frame has standard blue control buttons for minimize, maximize, and close.

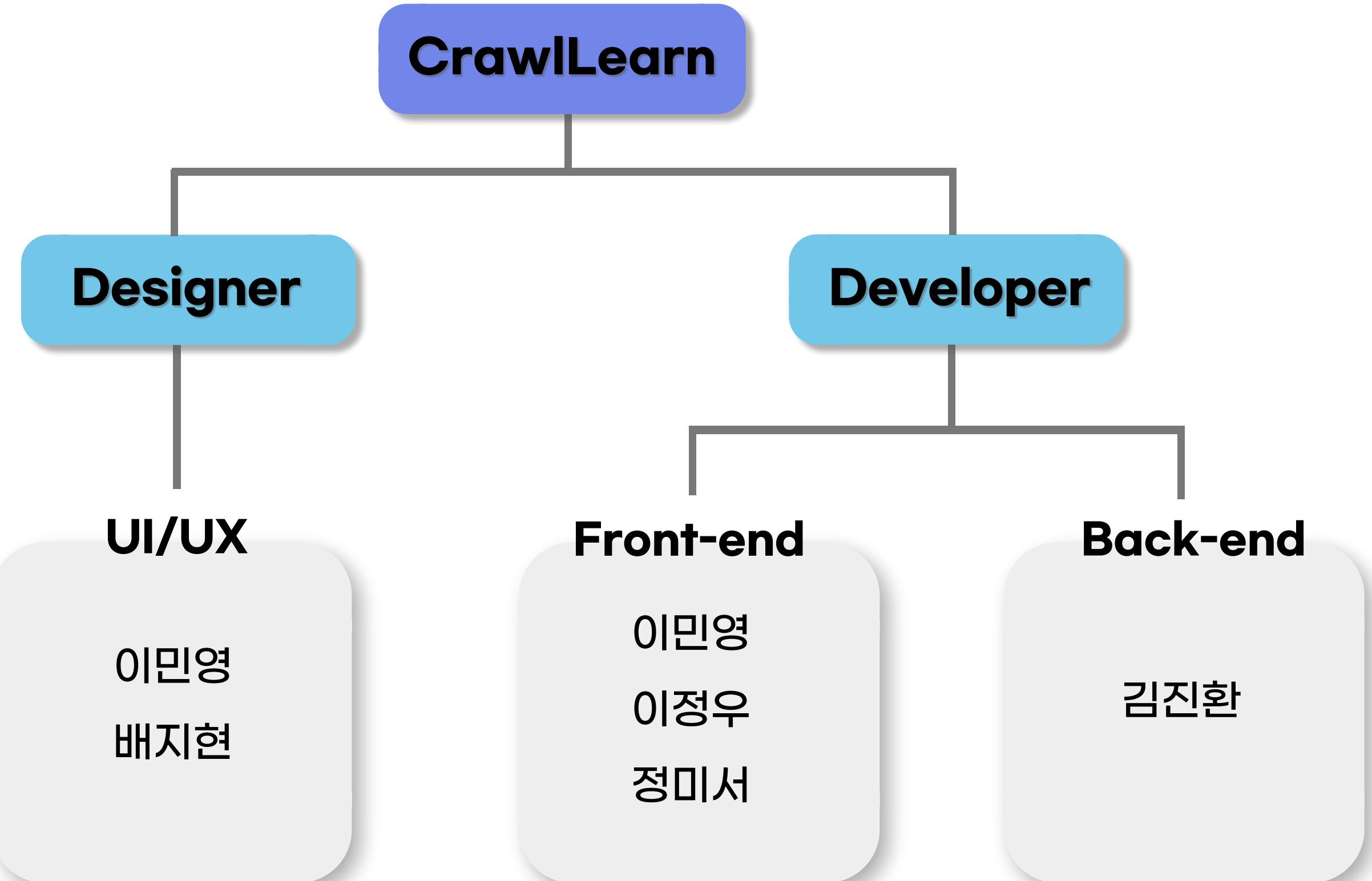
03

Team&Plan

Team information
Schedule

Team Information

Team name	CrawlLearn(Team2)
Participants	5 이민영(leader) 김진환 배지현 이정우 정미서



Schedule

Deadlines	Contents	Timeline						
		3/14 ~4/1	4/1 ~4/17	4/17 ~5/1	5/1 ~5/8	5/8 ~5/15	5/15 ~5/19	5/18 ~5/22
Proposal	Requirement Specification							
Requirement specification	Design	Architecture						
		UI						
Final presentation	Implement & Test	Subsystem & Unit Test						
		Integration & Test						
		Validation						
	Final Presentation							



01_Overview



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04_Effects & Benefits

A window frame with a blue border and a white header bar containing standard window controls (minimize, maximize, close).

04

Effects & Benefits

Benefits

For Skku students



#Save the cost



Reduce the learning costs for students

Free education system due to the school's own site

#Practical training



Practical training with implementation

Realize class and implementation in one space