

Portfolio

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Applied in
Cloud Technical Solutions Engineer



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Your Light, Pill Right



PORTFOLIO

SAMS

SECURITY AWARENESS MANAGEMENT SYSTEM

보안의식관리시스템

SAMS

(Security Awareness Management System)

Period

Sep. 2019 – Nov. 2019 (3 months)

Role

Project Manager

Job

Planning, Architect, Designer, Server Engineer
QA Engineer, Business Developer, CEO.

Goals

- Provide security technical solutions for large-enterprise.
- Visualize security awareness of employees with pattern analysis of web logs.

Result

- Goal 100%

Language : Python, C#, SQL, PHP

Framework : AWS EC2, MySQL, JQuery, Bootstrap

SAMS

(Security Awareness Management System)

Process

Audit

- Security Awareness
- Ethical Awareness



Analysis

- Web logs
- Quantitative Analysis with log and audit data.



Visualize

- Web dashboard
- Server and DB Module
- Client System(Log Parser)



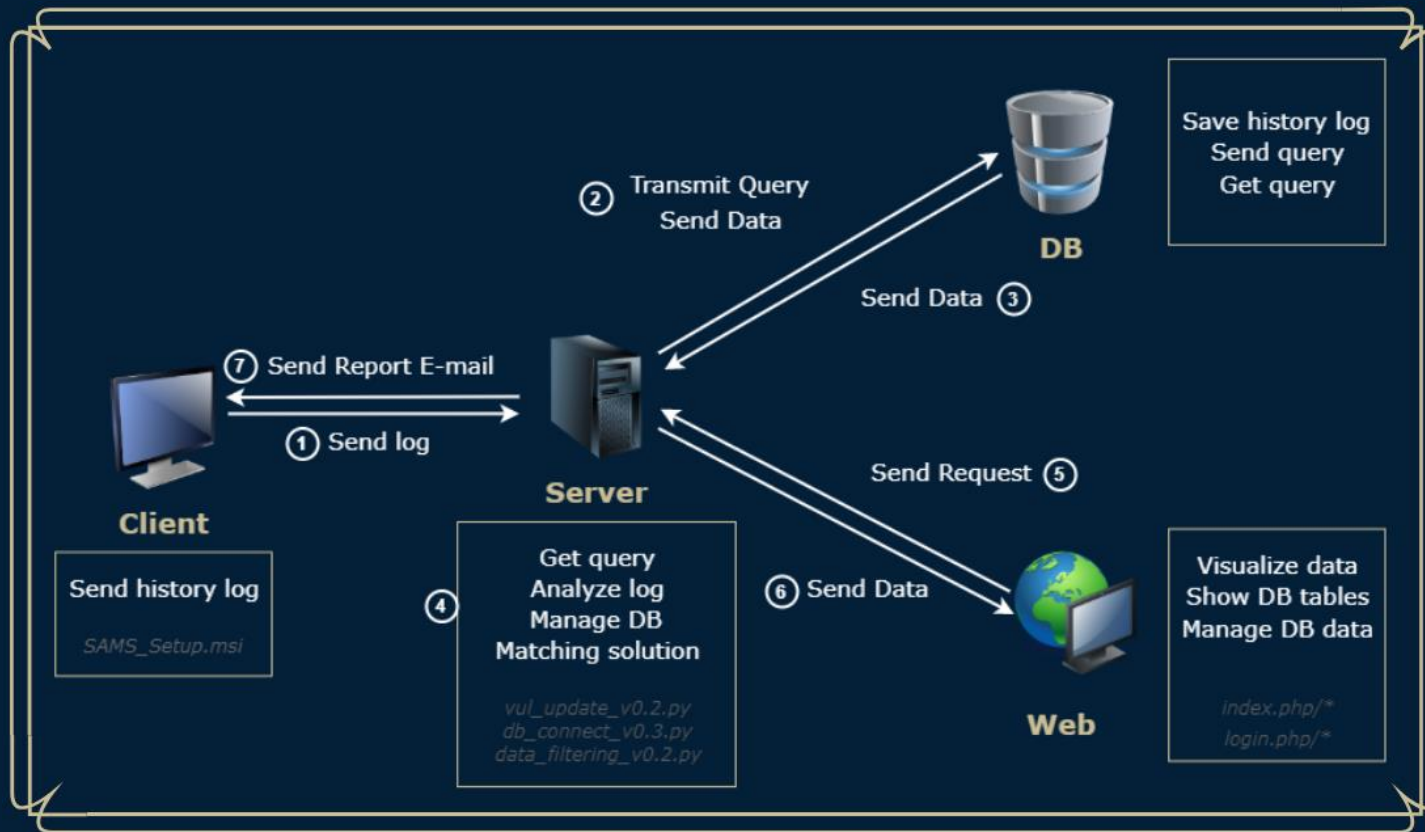
Solution

- Auto-making solutions on checklist.
- Matching solutions to employees.
- Monthly mail report.

1. Project Outline

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Architecture

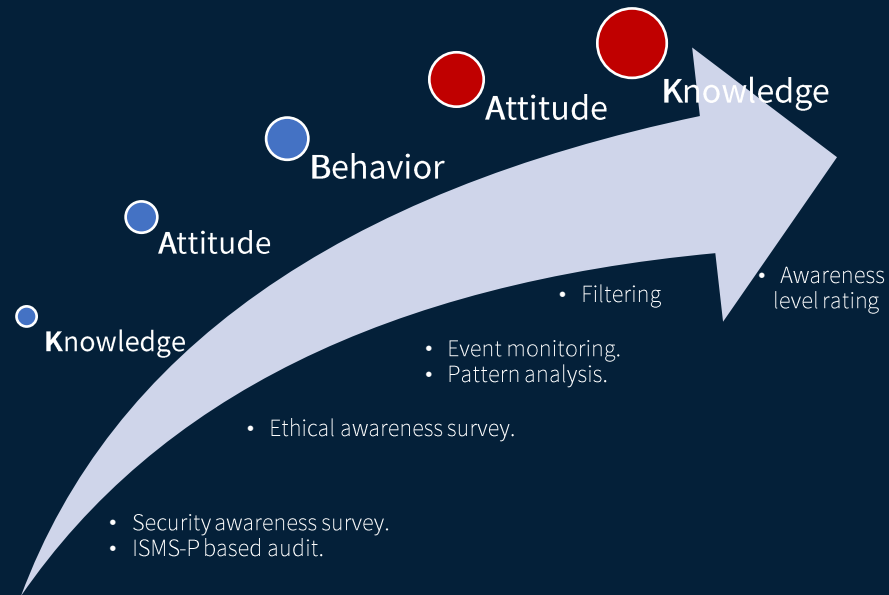


- ① Transport logs to server twice in a month.
- ② Analysis logs and transport query from web to DB.
- ④ Solution matching with DB data.
- ⑦ Auto-making report based in black-list filtering.

1. Project Outline

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Algorithms



KAB* (Knowledge+Attitude+Behavior) + Reversing KAB

* Measuring Information Security Awareness: A West Africa Gold Mining Environment Case Study (HA Kruger and WD Kearney, 2005)
* Determining Employee Awareness Using the Human Aspects of Information Security Questionnaire (HAIS-Q, Kathryn Parsons 외 3인, 2014)

AHP (Analytic Hierarchy Process)

Subject	Rate		Standard	Rate
Knowledge	30	➔	History	40
Attitude	20		Search Keyword	20
Behavior	50		Downloads	40

Awareness Level

Good (80% ~ 100%)

Average (79% ~ 60%)

Poor (59% ~ 0%)



Alert

=> Satisfactory – no need for action

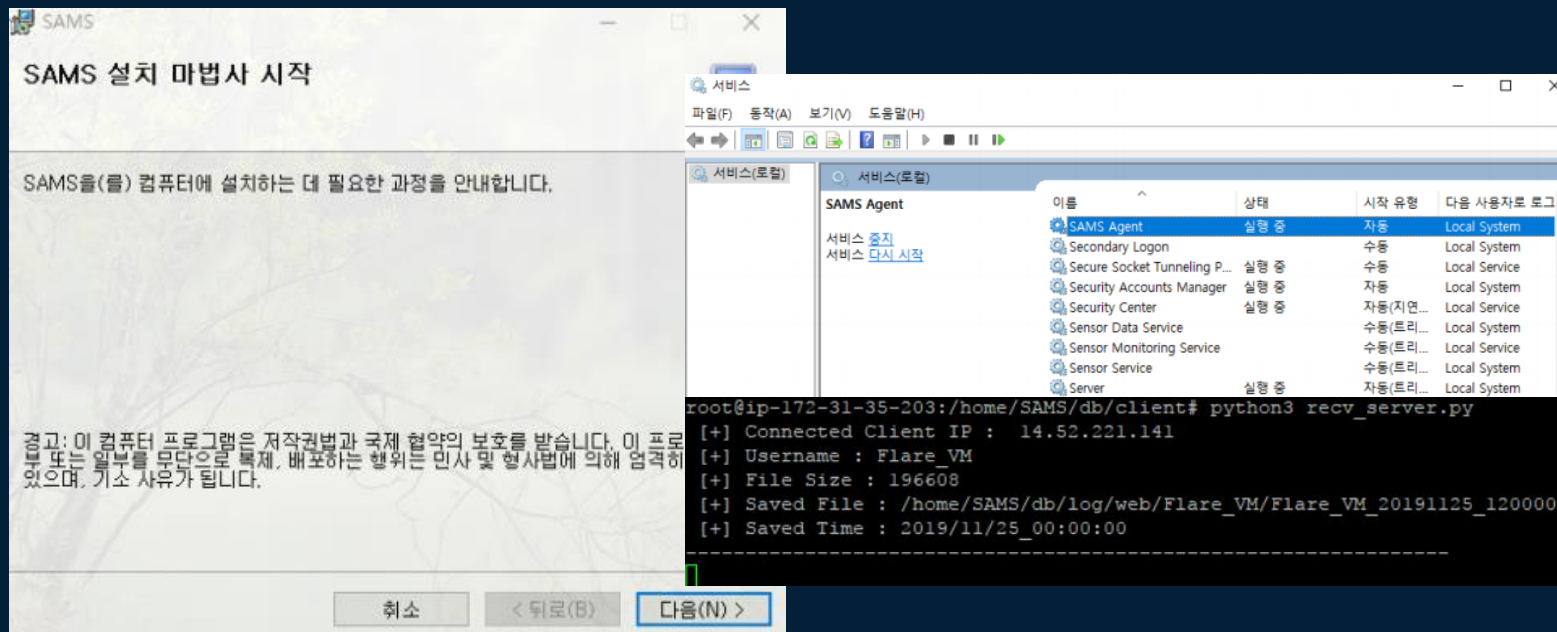
=> Monitor – potentially vulnerable

=> Unsatisfactory – action required

2. Project Output

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Client Agent



SAMS_Setup.msi

- Language : C#
- Role :
 - > Log Parser
 - > Time stamp module
 - > Transport

2. Project Output

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Web Channel

Page

Login.php – Login page

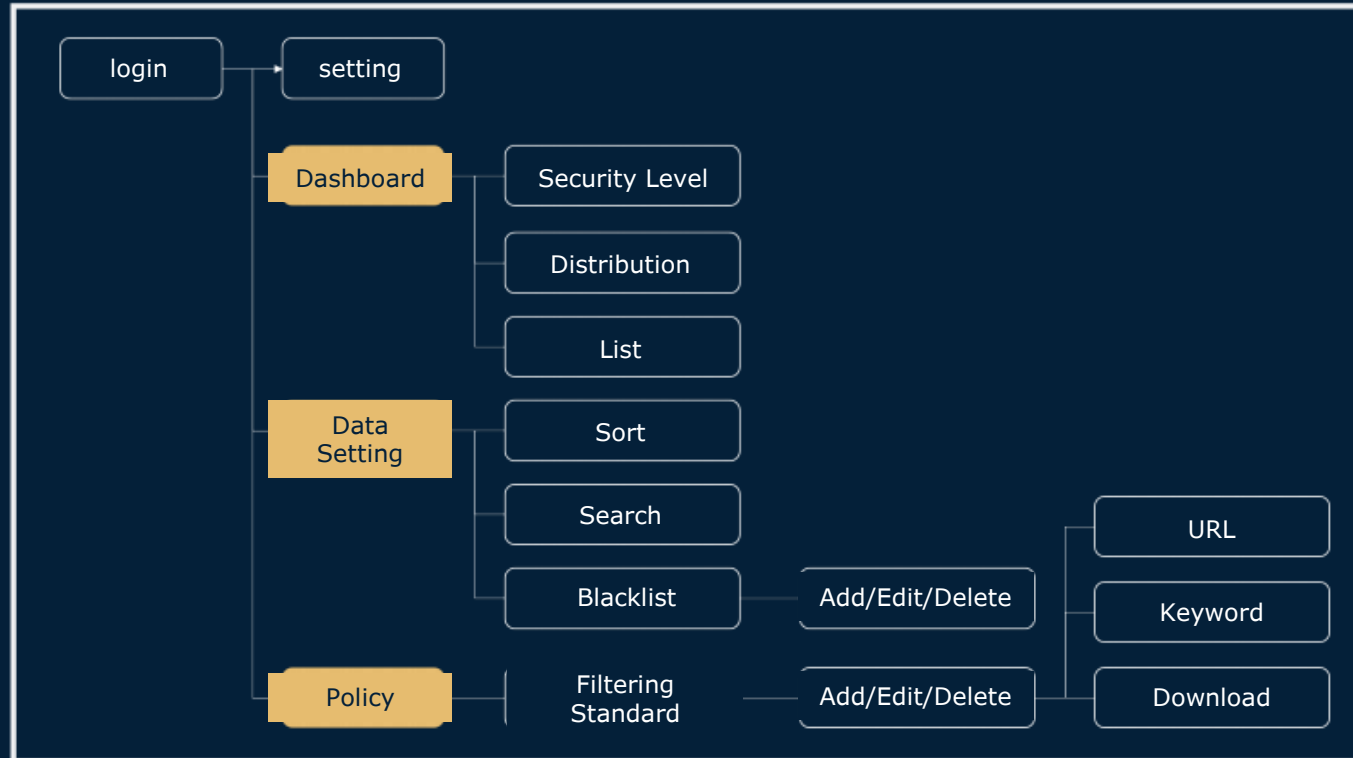
Updatedb.php – Transport log to DB

Index.php – Dashboard

Personal.php – Filtering result

Grade.php – Visualization logs

Set-Web-*.php – Blacklist settings

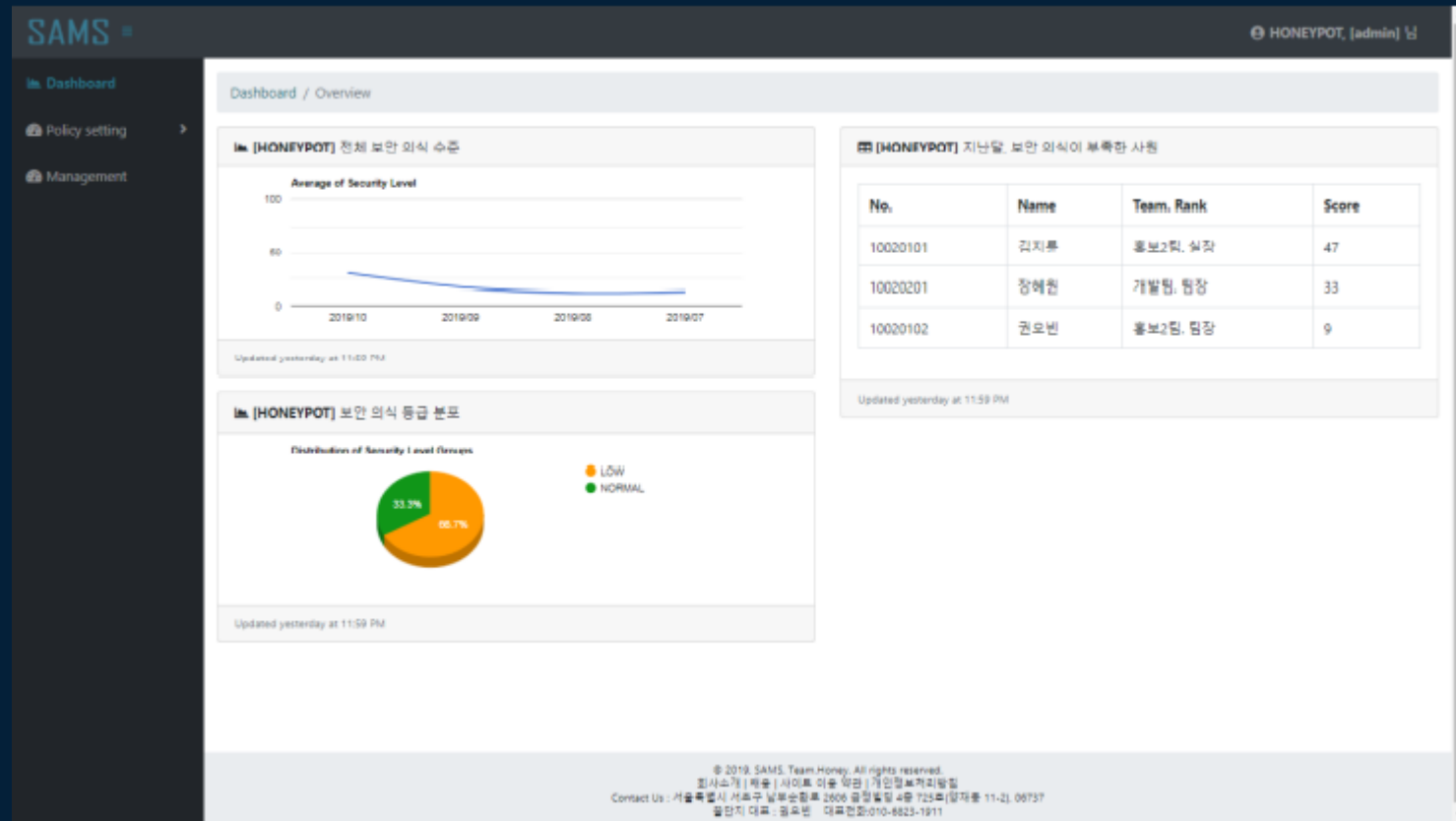


[그림 7] 웹구성-화면구성도

2. Project Output

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Web



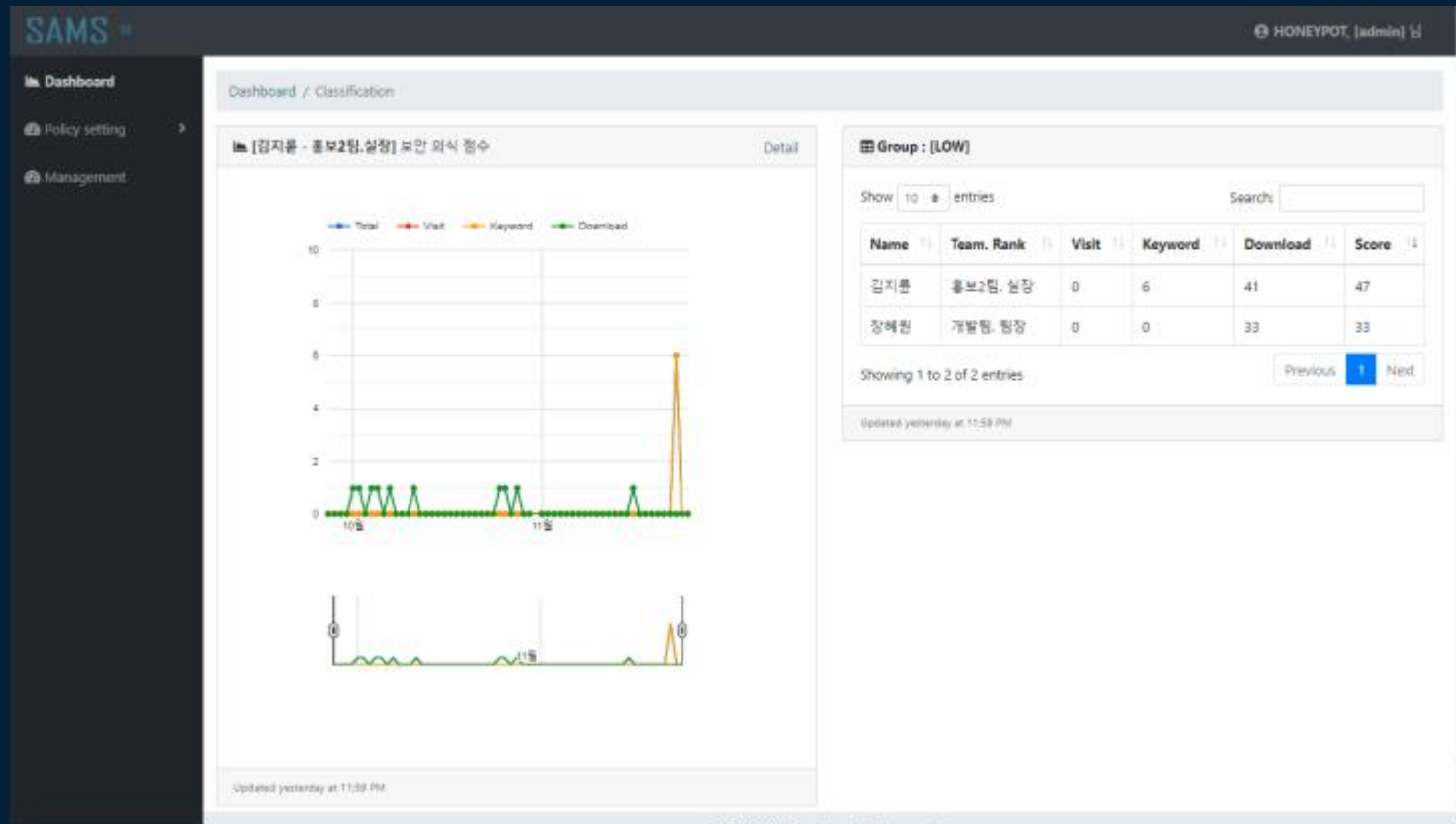
1. Dashboard

- Average of security level
- Distribution with standard
- Employee list with security level

2. Project Output

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Web



2. Detail result

- Classification of security levels
- x-axis : period(monthly)
- Y-axis : filtering standard

2. Project Output

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Web

The screenshot displays the SAMS HONEYPOT Web interface. The left sidebar contains navigation links: Dashboard, Policy setting (selected), Web Browser (Visit, Keyword, Download), and Management. The main content area is divided into two panels. The left panel, titled '[HONEYPOT] Blacklist of Visit', shows a table with one entry: No. 1, URL skong2.github.io, and Modify 수정/삭제. The right panel, titled 'Blacklist of Visit', shows a table with 10 entries, including 4shared.com, bitsnoop.com, bommin.net, chochong.net, chongryon.com, chosoninbo.com, cooko.sorg, danbooru.donmai.us, dongyoungsang.com, and dprk-book.com. Both panels include search bars and pagination controls.

[HONEYPOT] Blacklist of Visit

No.	URL	Modify
1	skong2.github.io	수정/삭제

Showing 1 to 1 of 1 entries

Updated yesterday at 11:59 PM

Blacklist of Visit

No.	URL
1	4shared.com
2	bitsnoop.com
3	bommin.net
4	chochong.net
5	chongryon.com
6	chosoninbo.com
7	cooko.sorg
8	danbooru.donmai.us
9	dongyoungsang.com
10	dprk-book.com

Showing 1 to 10 of 44 entries

Updated yesterday at 11:59 PM

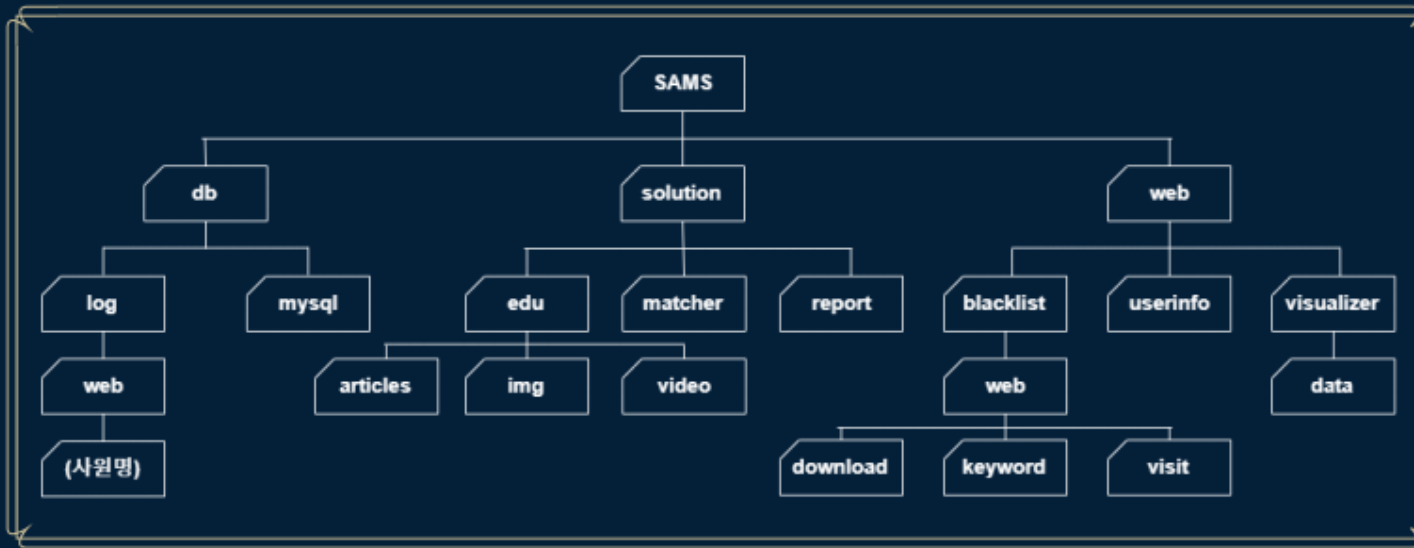
3. Admin Page

- Blacklist settings
- Employee settings

2. Project Output

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Server



[그림 14] 서버구성-디렉토리 구조

Modules

DB_connect.py : Analysis logs.

Data_filtering.py : Filtering logs based in blacklist.

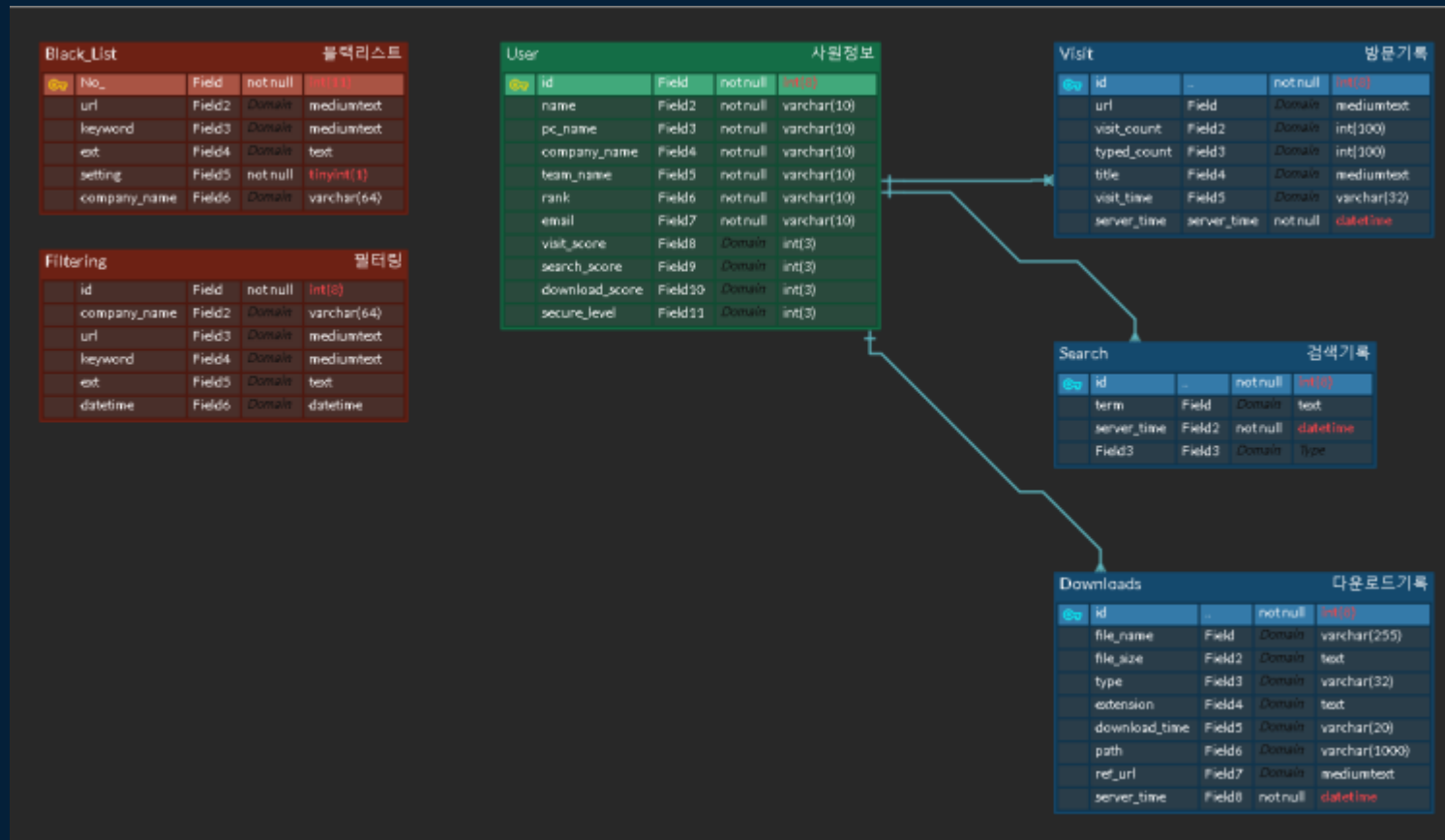
Vul_update.py : Extracting low level data from data_*.py.

Report_factory.py : Automated solution making.

2. Project Output

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Server



DB

13 tables

2. Project Output

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Solutions



Report_factory.py

- Analysis data from DB
- Column division
- Crawling security news
- Making HTML report files.
- AES256 Authorization

기업보안융합전공 산학협력프로젝트

YOUR LIGHT, **PILL RIGHT**

LAMPAS(IoT 2)

Your light, Pill right (IoT Application for prevention of drug abuse)

Period

Mar. 2018 – Nov. 2018 (1.5 months)

Role

Project Manager

Job

Planning, Architect, Designer, Cloud Engineer
, ML Researcher, QA Engineer.

Goals

- Identifying medications with cameras.
- Crawling and matching drug information.
- Voice print information of drugs to blind or illiterate people.

Result

- Goal 90%

Language : Python, C, SQL

Framework : GCP, Vision API, Json

Your light, Pill right

(IoT Application for prevention of drug abuse)

Process

Raspberry-pi

- Scan (Camera Module)
- Networking (LAN)
- TTS (Speaker Module)



GCP

- Cloud IoT Edge(TPU)
- IoT Networking
- Cloud Vision API
- Web-app hosting



Web

- Crawling from Korea pharmaceutical information center

More... Codes in here 

[Google Drive](#)