BINUS University

Academic Career:	Class Program:
Undergraduate / ~~Master~~ / ~~Doctoral~~ *)	*~~International~~/Regular/~~Smart Program~~/~~Global Class~~*)*

		Term : ~~Odd~~/Even/~~Short~~ *)
☑ **Mid Exam**	☐ **Final Exam**	
☐ **Short Term Exam**	☐ **Others Exam : _____**	

			Academic Year :
☑ **Kemanggisan**	☑ **Alam Sutera**	☐ **Bekasi**	
☐ **Senayan**	☐ **Bandung**	☐ **Malang**	**2019 / 2020**

Faculty / Dept.	:	School of Computer Science	Deadline	Day / Date	:	Jumat / 17 April 2020
				Time	:	13:00
Code - Course	:	COMP6176 - Human and Computer Interaction	Class		:	
Lecturer	:	Team	Exam Type		:	Online
*) *Strikethrough the unnecessary items*						

The penalty for CHEATING is DROP OUT!!!

I. Kasus (100%)

Article-1:

Coronavirus mobile apps are surging in popularity in South Korea

Seoul (CNN Business) *South Korea is one of the world's most tech savvy countries. So when the deadly <u>novel coronavirus outbreak</u> reached the Korean peninsula, app developers there knew exactly how to react: They started coding.*

Mobile apps that help track the disease in South Korea ranked as six of the top 15 downloads on the country's Google Play app store on Thursday. Developers of some apps — which source their data from public government information — told CNN Business that they have been getting a surge in downloads since launching their products earlier this month.

"The installs are increasing about 20,000 every hour," said Bae Won-Seok, one of the developers of Corona 100m, an app that allows people to see the date that a coronavirus patient was confirmed to have the disease, along with that patient's nationality, gender, age and where the patient visited. The person using the app can also see how close they are to coronavirus patients.

The app has been installed more than 1 million times since it was launched February 11, according to Google Play. Bae said that a recent surge in downloads, sparked by the escalating number of cases in the country, crashed the application's server.

Lee Jun-young, the developer of Corona Map, said he made his app because he found the government data hard to understand. Although health officials release locations that show where coronavirus patients have been, the official information isn't very visual.

"I thought it would be nice to mark them on a map," said Lee, a former Android software engineer who lives in Seoul.

There have now been more than 83,000 cases of coronavirus recorded worldwide, with infections on every continent except Antarctica. South Korea's 2,337 cases as of Friday mark the largest outbreak outside of mainland China, where the vast majority of cases have been recorded.

The outbreak has already begun to affect life and business in Korea. Korean Air, the country's flagship airline, is conducting temperature checks for passengers. Hyundai Motor shut down a plant in the country after one of its employees tested positive for the virus. The hit K-pop band BTS <u>cancelled four concerts</u> in Seoul.

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Reinert Yosua Rumagit (D6191) and sent to Program on Mar 30, 2020

One of the developers said he's even taken more precautions because of what the apps have shown. Bae said he was so concerned about the number of coronavirus cases in his neighborhood that he sent his daughter to stay with her grandparents to reduce the risk of exposure.
Developers who spoke to CNN Business said they are spending their own money to run their apps. The developers behind Corona 100m and Corona Doctor are also asking for donations from users.
"When I think that this app can prevent the spread of coronavirus patients by advising people not to go to certain places … I feel proud," said Lee, the Corona Map developer. He said he hopes the government develops its own app to pick up from where his project started.

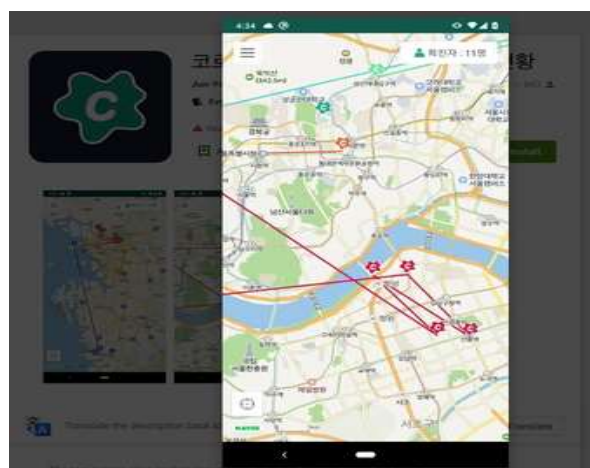*Source:* https://edition.cnn.com/2020/02/28/tech/korea-coronavirus-tracking-apps/index.html

Article-2:

3 Kunci Korea Selatan Berhasil Tangani Virus Corona Lebih Baik dari Negara Lain

SEOUL, KOMPAS.com - Sejak kasus pertama diumumkan pada 20 Januari silam, pemerintah Korea Selatan kerap mengumumkan angka kesembuhan lebih sering dibandingkan angka kasus infeksi baru. Ada tiga kunci mengapa Korea Selatan tepat dalam penanganan virus corona.

Pertama, pemerintah Korea Selatan mengadakan pengujian yang luas dan efektif dengan menggunakan *drive-thru-clinics*. Dalam satu hari, sekitar 15 ribu warganya dapat dites virus sehingga meminimalisir penularan baik masih berupa gejala ringan apalagi gejala berat. Baca juga: Kota Suci Islam Syiah di Iran Ditutup karena Wabah Virus Corona Layanan *drive-thru-clinics* dapat mengurangi beban rumah sakit dan mengurangi risiko kesehatan petugas medis. Dikutip dari CNN, sebuah perusahaan bioteknologi Korea telah mengembangkan tes virus corona dalam waktu tiga pekan. Seseorang yang dites virus dan mendapat bantuan dokter bisa memintanya sehingga membuatnya mudah dalam mengakses. Terdapat juga 96 jaringan laboratorium yang mampu memproses sampel-sampel hasil tes virus. Menteri Kesehatan Korea Selatan, Park Neunghoo mengatakan kepada CNN, "Mendeteksi pasien sejak dini sangat penting."

Kedua, pemerintah Korea Selatan selalu beri informasi yang terbuka kepada publik. Contoh paling nyata adalah lokasi GPS dari seseorang yang terkonfirmasi Covid-19 bisa dilihat dari aplikasi sehingga warga lain yang belum tertular bisa menjauhi area tersebut. Meski hal itu dipertanyakan dari perspektif privasi, namun dapat membantu orang lain merasa aman dan tentu mengetahui informasi yang benar dan mengendalikan kesehatan mereka.

Gambar 1. Salah satu aplikasi Covid-19 Korea Selatan yang menunjukkan di mana kasus infeksi dapat dilihat secara daring. (screenshots google play via business insider)

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Ketiga, Korea Selatan juga melakukan *Social Distancing* untuk memotong pertumbuhan kasus. Dengan populasi 51 juta orang, mereka telah menutup sekolah-sekolah, kantor-kantor dan melarang pertemuan besar. Terdapat pula kamera pengecek suhu di tiap pintu masuk gedung dan petugas berpakaian pelindung di tempat umum untuk mengingatkan warga agar mencuci tangan mereka. Saat ini, berdasarkan https://www.worldometers.info/coronavirus/ angka infeksi di Korea Selatan mencapai 8.236 dengan 150 kasus baru. Meski begitu angka sembuhnya cukup tinggi yakni sebesar 1.137 orang dan angka kematian yang sangat kecil dibandingkan daratan utama China, Italia dan Iran yaitu 75 orang.

*Source:*https://www.kompas.com/global/read/2020/03/16/102319770/3-kunci-korea-selatan-berhasil-tangani-virus-corona-lebih-baik-dari?page=2.

PERTANYAAN:

Dari artikel-1 dan artikel-2 diatas, apabila Anda dan tim ditunjuk sebagai System Analyst juga Developer dalam mengembangkan aplikasi mobile untuk pencegahan penyebaran virus corona (covid-19) di Indonesia dengan memberikan informasi lokasi GPS dari seseorang yang terkonfirmasi covid-19 sesuai statusnya (Orang Dalam Pemantauan (ODP) / Pasien Dalam Pengawasan (PDP) / *Suspect* / Positif / Sembuh) serta lokasi penyebab seseorang terpapar Covid-19 menurut informasi penelusuran. Pertimbangkan siapa saja yang berperan dalam memberikan data yang dibutuhkan sesuai regulasi Pemerintah Indonesia.

1. Buatkan *Conceptual Design* selengkap-lengkapnya (termasuk *Use Case*)! (**30%**)
2. Jelaskan *Interaction Type* apa saja yang paling mungkin terjadi! (**10%**)
3. Analisa, gambarkan dan jelaskan bentuk *Cognitive Aspect* apa saja yang paling mungkin akan diterapkan pada aplikasi tersebut! (**30%**)
4. Analisa dan jelaskan bentuk *Social dan Emotional Interaction* apa saja yang paling mungkin dapat di-*embedded* pada aplikasi tersebut! (**30%**)

-- Selamat Mengerjakan --

KETENTUAN PENGUMPULAN BERKAS JAWABAN UTS

Mahasiswa <u>wajib</u> mematuhi ketentuan pengumpulan berkas jawaban UTS berikut ini.

1. Pengumpulan (*submit*) jawaban ujian **tidak melalui BINUSMAYA**, melainkan melalui **http://exam.apps.binus.ac.id.** Akses menggunakan *username* dan *password login* BINUSMAYA.

2. Pastikan *file extension* dan *size file* sesuai ketentuan. File extension yang diperbolehkan adalah 'txt', 'pdf', 'ppt', 'xls', 'doc', 'pptx', 'xlsx', 'docx', 'rar', 'zip', 'jpg', 'jpeg', 'png', 'wav', 'mp3', 'mp4', 'avi', '3gp', 'mkv', 'mov', dan 'flv'. Maksimum *size file* yang diperbolehkan adalah 20 MB.

3. Jika *file* jawaban ujian akan dikumpulkan (*submit*) Mahasiswa berukuran lebih besar dari 20 MB (>20 MB), maka Mahasiswa harus melakukan:
   a. Menyimpan *file* jawaban ujian pada *Cloud Storage*, seperti *Google Drive, Dropbox, OneDrive*, dan yang lainnya.
   b. Membagikan tautan (*share link*) file jawaban ujian dan menyalin tautan (*link*) ke dalam Microsoft Word.
   c. Mengunggah (*upload*) file Micrososft Word yang telah berisi tautan file jawaban ujian pada **http://exam.apps.binus.ac.id**.

STUDENT'S GUIDELINES FOR SUBMITTING MID EXAM ANSWER FILE

Students are obliged to follow the following guidelines for submitting mid exam answer file:

1. The answer file is **not to be submitted in BINUSMAYA**, but through the following link: **http://exam.apps.binus.ac.id.** Students can log in by using the username and password as in BINUSMAYA.

2. Please make sure to submit the answer file in one of the following accepted extensions: 'txt', 'pdf', 'ppt', 'xls', 'doc', 'pptx', 'xlsx', 'docx', 'rar', 'zip', 'jpg', 'jpeg', 'png', 'wav', 'mp3', 'mp4', 'avi', '3gp', 'mkv', 'mov', or 'flv'. The file size should not exceed 20 MB.

3. If the answer file size exceeds 20 MB, the student should perform the following procedures:
   a. Save the answer file in Cloud Storage such as Google Drive, Dropbox, OneDrive, etc.
   b. Copy the file link and paste it on a blank Microsoft Word document.
   c. Upload the Microsoft Word document containing the file link through **http://exam.apps.binus.ac.id.**