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Earthquake Virtual Reality

By: Layana Indonesia

BACKGROUND

Preparedness is important and must be built in every society. Experience shows that victims and losses from disasters can be drastically reduced if everyone is better prepared for disasters. An earthquake disaster simulation needs to be carried out to train preparedness in an emergency to reduce panic and be able to save yourself. Virtual reality is a technology that allows users to interact with the environment in a virtual world that is simulated by a computer, thus making users feel like they are in that environment. Virtual reality allows users to choose a place to simulate earthquake events according to the user's wishes, such as in the classroom, office, and others.

Benefit

- ✓ It can be accessed from anywhere via the public's smartphone.

- ✓ There are various virtual reality videos that can be accessed according to the user's wishes.

- ✓ The size of the application is relatively small because the video content can be accessed by streaming by the user.

- ✓ The development cost is relatively cheaper.
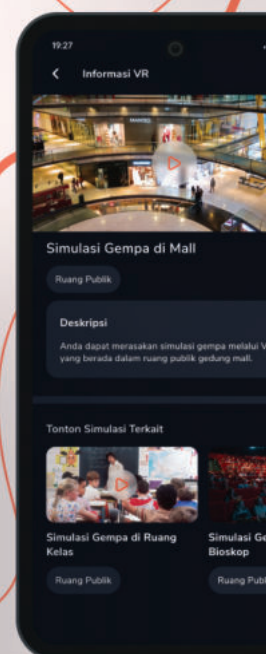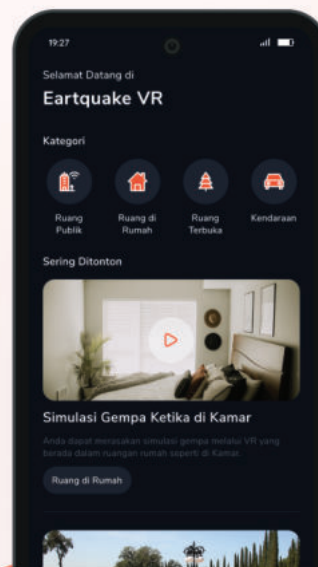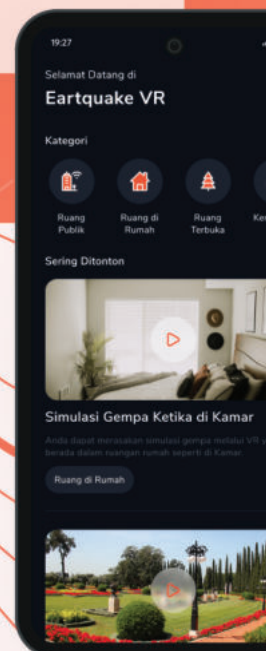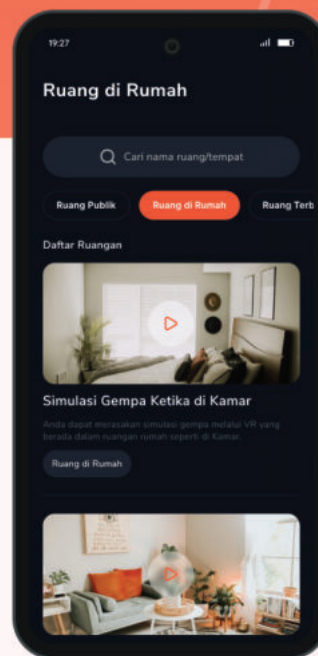
Our Team

Umar Himawan
Mobile Developer

Cahyo
Project Manager

M. Hendra F.
UI/UX Designer

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GETANA

Disaster response bracelet for persons with disabilities and vulnerable groups

Based on current 2020 data from the Central Bureau of Statistics (BPS), the number of people with disabilities in Indonesia reaches 22.5 million or around five percent, not to mention the number of other vulnerable groups. Information on disaster preparedness is often difficult to access by the public, causing considerable losses, especially for persons with disabilities who are less responsive and unprepared for disasters. In the implementation of disaster response, persons with disabilities often do not receive attention in obtaining disaster information, accessing emergency assistance and essential services. Therefore, there is a need for a system that can be used by disabled and vulnerable groups to obtain accessible disaster preparedness information and adapt to the needs of its users.

This system is made in the form of a bracelet so that it can be used easily by persons with disabilities and other vulnerable groups.

Providing access to communication for people with disabilities is very important, especially for people with sensory and cognitive disabilities. These two types of disabilities access information in different ways and must be met according to their needs. For example, written notification is needed for people with hearing sensory disabilities, voice notifications for people who are visually impaired, and the output can be adjusted to the needs of other users.

The output of this system is in the form of warnings such as sound, vibration and LCD interface. This system is also able to take action, namely providing information on disaster alert at the user's location, requesting assistance (**SOS**) if in a dangerous situation and providing information on potential disasters at the user's location.

HYPOCRITE TEAM

Arif Nur A. Risman

Fandilla Dimas P.

Riki Bastian

This team was spearheaded by 3 active students from the Sumatra Institute of Technology, Electrical Engineering. The three of us have different backgrounds but with the same goal, which is so that our knowledge can be useful for many people. We hope that the system we have developed to participate in this competition will benefit many Indonesian people, especially people with disabilities and vulnerable groups, so that they are able to respond to disasters that will occur around them at any time. #StaySafeWithoutSeeinglimitations
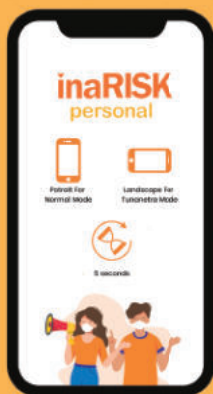
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FOR BLIND

Give them the opportunity to participate in disaster reporting in Indonesia.

Application flow:

1. Choose normal or blind menu

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personal

Portrait For Normal Mode | Landscape For Tunanetra Mode

5 seconds

Rotate screen orientation to select application mode.

Based on data from data.jakarta.go.id, there are 1860 blind people in DKI Jakarta.

With this application we can provide an opportunity for the blind to obtain information related to Indonesian disasters and they also have the opportunity to provide reports related to disasters that occur in their area.

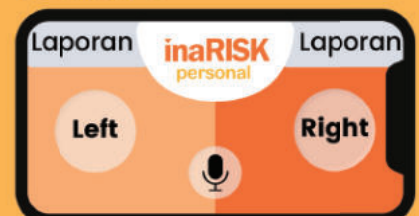**2. Select the type of disaster that you want to find information about**

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personal

Left | Right

Tap left or right to change disaster type, double tap to select disaster type.

2. State the area in question using your voice

Covid - 19 | Covid - 19

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personal

Left | Right

Voice will explain the disaster conditions in the area. to find information on covid 19 in other areas, please tap right 1 time and to return to the main menu, tap left 2 times.

2. Right tap 3X to select disaster report feature

Laporan | Laporan

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personal

Left | Right

The user can say the full name, position, type of disaster, and also tell the condition of the natural disaster then double right tap to send the report.

M Zaki Aflahdiyag
Cybersecurity

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