

GROUP 4

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DESIGN

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Problem Statement

A close-up, high-speed photograph of a single water droplet falling into a body of water. The droplet is captured mid-fall, just above the surface, creating a clear, spherical shape. Below the droplet, the water surface is disturbed, forming concentric ripples that spread outwards. The background is a dark, textured blue-grey, providing a stark contrast to the bright, reflective water droplet and ripples.

In South Africa access to safe and clean water is not a privilege available to everyone, especially in rural areas where water sources may be rivers with contaminated water. Recently there has been an incident in Hammanskraal, where people fell sick due to the unhealthy water they were consuming. The incident even resulted in fatalities due to the sicknesses, this raises a need for a platform that can raise awareness to South Africans about the safety of the water they have

Solution

A high-speed photograph of a single water droplet hitting a dark blue, reflective surface. The droplet is captured at the moment of impact, forming a perfect sphere that reflects the surrounding environment. Concentric ripples emanate from the point of contact, spreading outwards across the surface. The lighting is soft, highlighting the texture of the water and the clarity of the droplet.

- Our solution is to develop a zero rating application and a ussd that will raise awareness and help in reporting contaminated water, whereby they will use the H₂S test to test if the water is clean.
- The application will also provide measures to mitigate the risk of consuming polluted water.

A close-up photograph of a single water droplet hitting a dark, reflective surface. The droplet is in the process of flattening, creating a series of concentric ripples that spread outwards. The lighting is dramatic, highlighting the spherical shape of the droplet and the texture of the ripples. The background is a deep, dark blue-grey.

User levels

- **A household:** they are the ones who will use the H2S to test water in their household.
- **A Municipality:** They will use the application to retrieve information regarding areas which have contaminated water.
- **Experts:** the lab instruments are used to count the micro organism that causes the high risk of infection and diseases like diarrhea. They then report this information the system.

Commercialization

A high-speed photograph of a single water droplet suspended in mid-air, just as it has struck a dark blue, reflective surface. The droplet is perfectly spherical and transparent, reflecting the surrounding environment. Below it, a series of concentric ripples spread outwards across the surface, creating a sense of motion and impact. The lighting is soft, highlighting the droplet's form and the texture of the water.

- Partnership and alliances

-partner with local water authorities or health agencies to gain credibility.

Seek grants or sponsorships from organisations that support projects aligned with the apps mission NPOs.

Uniqueness(Competitive Advantage)

A high-speed photograph of a single water droplet suspended in mid-air just above a dark blue liquid surface. The droplet is perfectly spherical and reflects light, creating a bright highlight. Below it, concentric ripples spread outwards from the point of impact, creating a sense of motion and depth. The background is a smooth gradient of dark blue.

- Our competitors are indirect competitors because our objective is similar to theirs in that we're all trying to provide people with safe and clean water , however our approach deviates from the usual way of achieving the same thing , which other companies are currently providing.

A high-speed photograph of a single water droplet hitting a dark blue, reflective surface. The droplet is captured mid-fall, just before it fully merges with the surface, creating a series of concentric ripples that spread outwards. The lighting is soft, highlighting the spherical shape of the droplet and the texture of the water's surface.

Target Market

- Mainly residents of communities affected by water contamination.
 - Water treatment facilities

A high-speed photograph of a single water droplet hitting a dark, reflective surface. The droplet is captured mid-fall, just as it begins to flatten, creating a series of concentric ripples that spread outwards. The lighting is dramatic, highlighting the spherical shape of the droplet and the texture of the ripples.

Competitors

Our competitors are external since they deal with purifying the water and our assessment is to create an application will help in raising awareness about contaminated water. Our competitors are as follows:

- H2O international SA
- PureSA
- Aquamat SA
- Puritech water purification systems