IFS 361 Group Assignment

Group Number 7: 2025 Group Assignment - Group 7

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Based on Green, J. (2015) Opportunity Analysis Canvas and Stanford's d.school
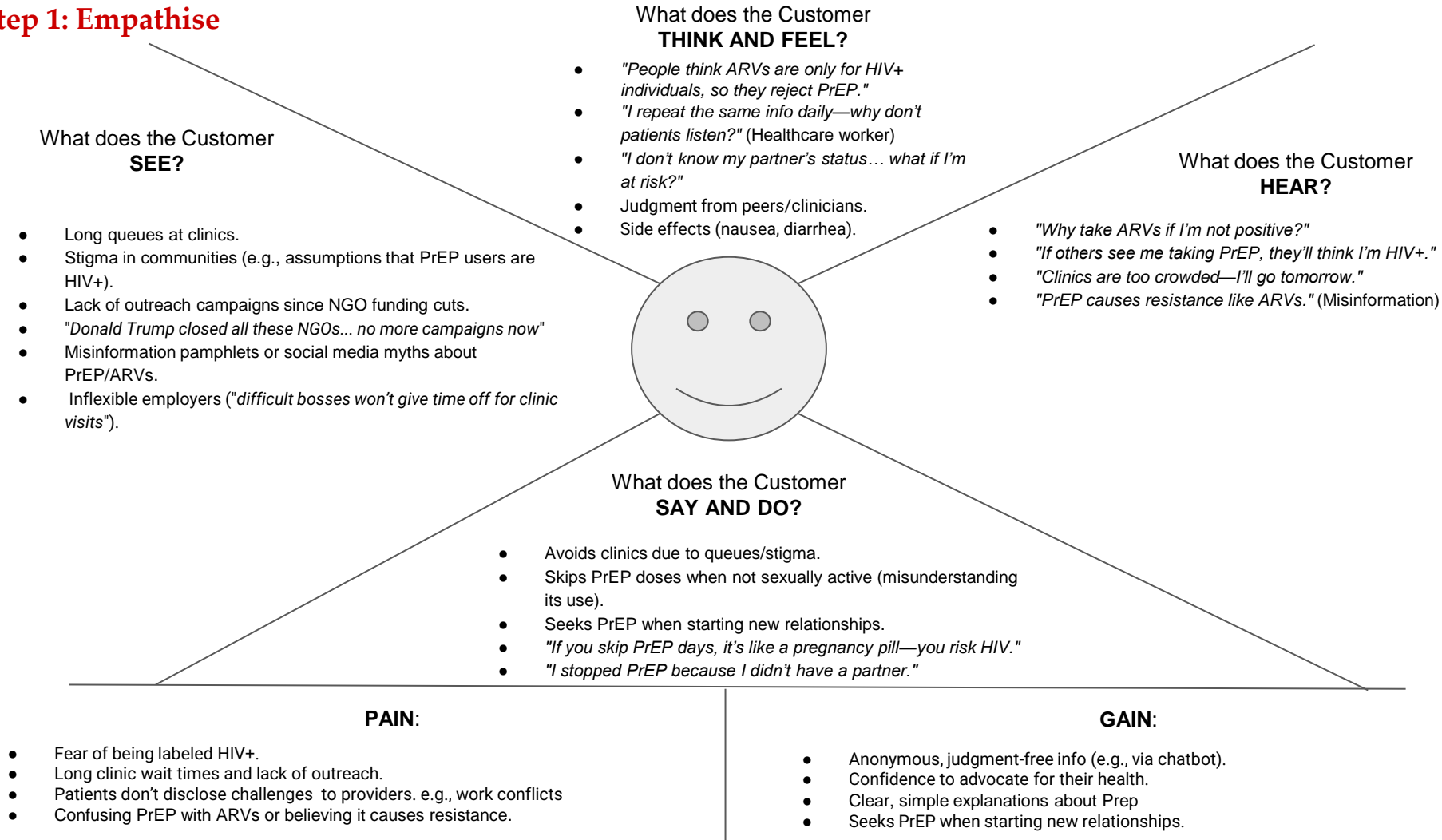
Business Creation Group Assignment

<u>Anti-plagiarism Declaration</u>

We declare that the assignment is entirely our own work.

We know that plagiarism is a serious offence. Plagiarism is using another person's work, words and ideas as his/her own without the correct acknowledgement and reference.

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Step 1: Empathise

What does the Customer SEE?

- Long queues at clinics.
- Stigma in communities (e.g., assumptions that PrEP users are HIV+).
- Lack of outreach campaigns since NGO funding cuts.
- "*Donald Trump closed all these NGOs... no more campaigns now*"
- Misinformation pamphlets or social media myths about PrEP/ARVs.
- Inflexible employers ("*difficult bosses won't give time off for clinic visits*").

What does the Customer THINK AND FEEL?

- *"People think ARVs are only for HIV+ individuals, so they reject PrEP."*
- *"I repeat the same info daily—why don't patients listen?"* (Healthcare worker)
- *"I don't know my partner's status… what if I'm at risk?"*
- Judgment from peers/clinicians.
- Side effects (nausea, diarrhea).

What does the Customer HEAR?

- *"Why take ARVs if I'm not positive?"*
- *"If others see me taking PrEP, they'll think I'm HIV+."*
- *"Clinics are too crowded—I'll go tomorrow."*
- *"PrEP causes resistance like ARVs."* (Misinformation)

What does the Customer SAY AND DO?

- Avoids clinics due to queues/stigma.
- Skips PrEP doses when not sexually active (misunderstanding its use).
- Seeks PrEP when starting new relationships.
- *"If you skip PrEP days, it's like a pregnancy pill—you risk HIV."*
- *"I stopped PrEP because I didn't have a partner."*

PAIN:

- Fear of being labeled HIV+.
- Long clinic wait times and lack of outreach.
- Patients don't disclose challenges to providers. e.g., work conflicts
- Confusing PrEP with ARVs or believing it causes resistance.

GAIN:

- Anonymous, judgment-free info (e.g., via chatbot).
- Confidence to advocate for their health.
- Clear, simple explanations about Prep
- Seeks PrEP when starting new relationships.

Complete the 5 Whys for the common themes identified in your group's empathy map

Why? Why do South African youth and adults who are or have engaged in sexual intercourse are scared or unwilling to take PrEP(pre-exposure prophylaxis), a medication that HIV-negative individuals can take to reduce the risk of acquiring HIV.

Why? They are misinformed about who can take the medication why the should

Why? South Africa lacks enough dedicated campaigns that raise awareness about PrEP

Why? These campaigns lack funding here in South Africa

Why? Due to funding constraints and prioritization in South Africa, government spend most of its HIV funding on treatment for people with HIV rather than on prevention.

Step 2: Define

- Create your POV

- [User . . . (descriptive)] needs [Need . . . (verb)] because [Insight . . . (compelling)]

CHS professionals and health workers in the Western Cape Province, South Africa who focus on HIV prevention need effective strategies to improve outreach, educate at-risk communities, and combat misinformation about PrEP—a medication that reduces HIV risk. Despite PrEP being available, stigma, systemic barriers, and declining NGO support due to political changes continue to hinder access and undermine prevention efforts.

Create your HMW

- How might we make community residents feel comfortable with using PrEP?
- How might we help health workers raise awareness of PrEP without people going to clinics to get information?
- How might we help community residents with the stigma they have regarding PrEP?
- How might we empower CHS professionals gain the trust of communities that are hesitant about PrEP?
- How might we lessen the stigma surrounding PrEP in a way that respects cultural differences and is effective?
- How might we make PrEP education more interesting and relevant for young people and marginalized groups?
- How might we make accessing PrEP easier in areas with limited resources?
- How might we partner with local influencers or community leaders to make PrEP use more accepted?
- How might we change the conversation about PrEP from one based on fear to one focused on empowerment?
- How might we use storytelling and personal experiences to make PrEP more relatable and encourage its use?
- How might we create outreach strategies for PrEP that cater to individuals who are skeptical of healthcare systems?

Step 3: Ideate - Insert Brainstorm

Brainstorm / AI Chatbot for PrEP in South Africa
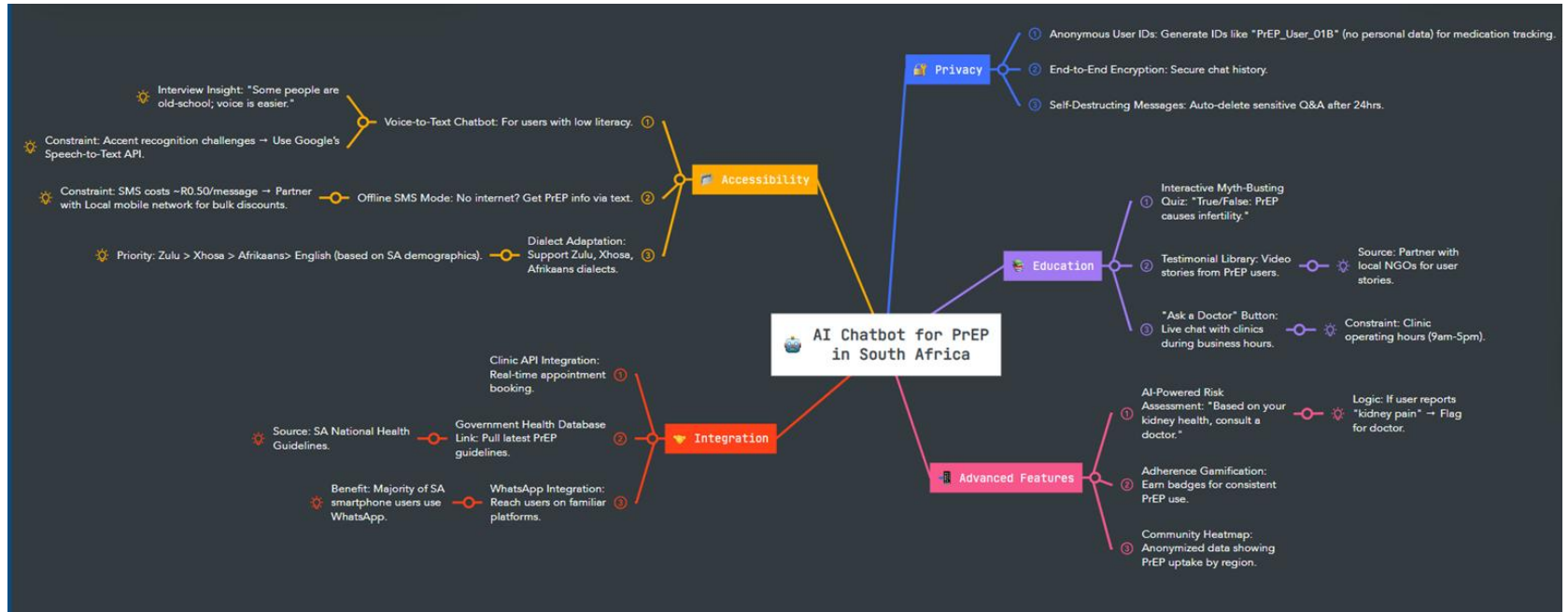
Complete The Opportunity Analysis Canvas™
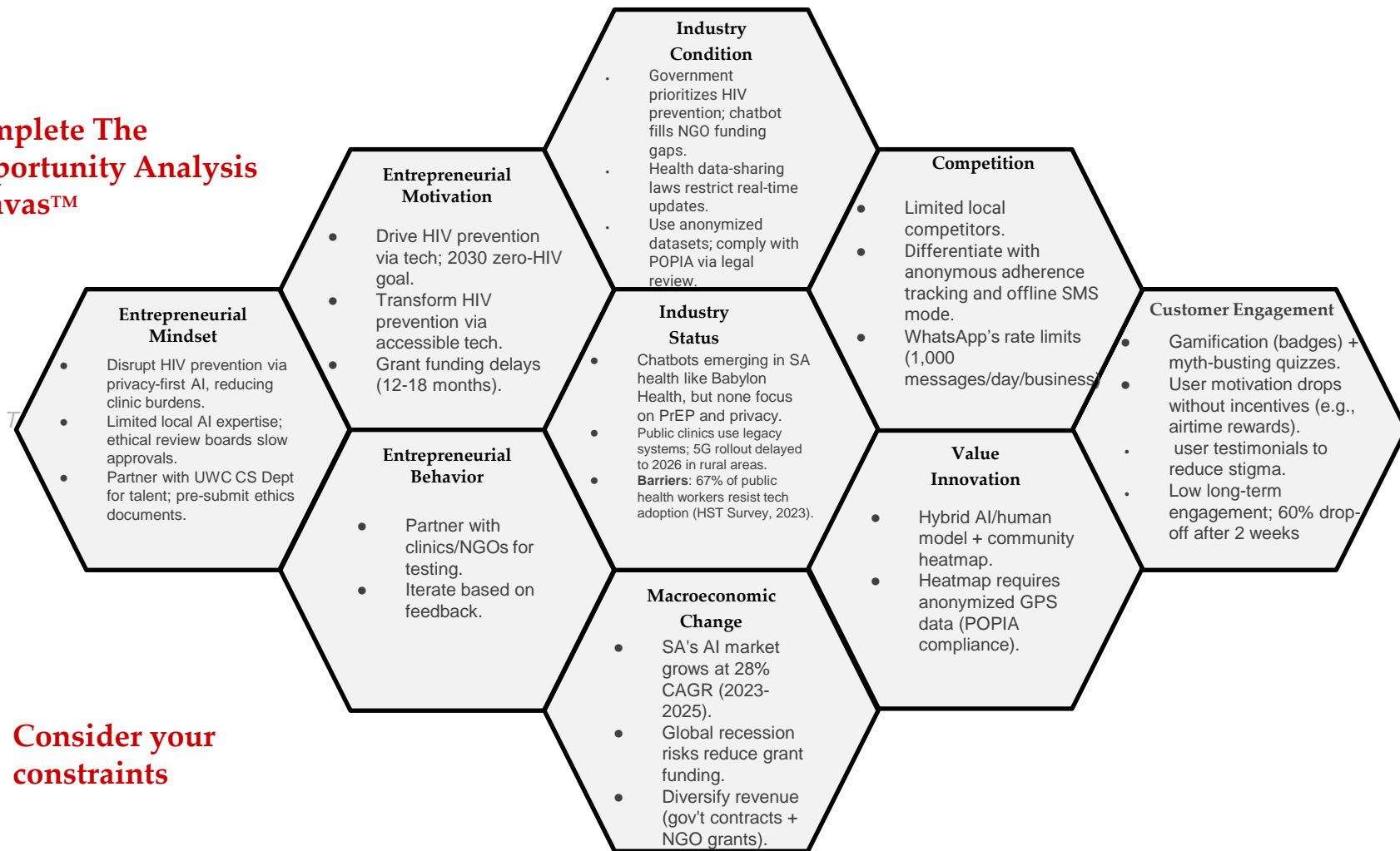
Consider your constraints

Industry Condition
- Government prioritizes HIV prevention; chatbot fills NGO funding gaps.
- Health data-sharing laws restrict real-time updates.
- Use anonymized datasets; comply with POPIA via legal review.

Entrepreneurial Motivation
- Drive HIV prevention via tech; 2030 zero-HIV goal.
- Transform HIV prevention via accessible tech.
- Grant funding delays (12-18 months).

Competition
- Limited local competitors.
- Differentiate with anonymous adherence tracking and offline SMS mode.
- WhatsApp's rate limits (1,000 messages/day/business)

Entrepreneurial Mindset
- Disrupt HIV prevention via privacy-first AI, reducing clinic burdens.
- Limited local AI expertise; ethical review boards slow approvals.
- Partner with UWC CS Dept for talent; pre-submit ethics documents.

Industry Status
- Chatbots emerging in SA health like Babylon Health, but none focus on PrEP and privacy.
- Public clinics use legacy systems; 5G rollout delayed to 2026 in rural areas.
- **Barriers**: 67% of public health workers resist tech adoption (HST Survey, 2023).

Customer Engagement
- Gamification (badges) + myth-busting quizzes.
- User motivation drops without incentives (e.g., airtime rewards).
- user testimonials to reduce stigma.
- Low long-term engagement; 60% drop-off after 2 weeks

Entrepreneurial Behavior
- Partner with clinics/NGOs for testing.
- Iterate based on feedback.

Value Innovation
- Hybrid AI/human model + community heatmap.
- Heatmap requires anonymized GPS data (POPIA compliance).

Macroeconomic Change
- SA's AI market grows at 28% CAGR (2023-2025).
- Global recession risks reduce grant funding.
- Diversify revenue (gov't contracts + NGO grants).

Idea selection

User feedback

Solution	Summarise user feedback
Multilingual Chatbot	" Misheard my accent ⅔ times"
Clinic Locator	"Estimated Travel times would help me choose clinics"
Kidney Risk Triage	"The doctor button looks like a normal link"
Reminders/Notifications	" I Love how my identity is kept anonymous and i am able to customise my username"

Solution Summary: Innovation Molecule

Solution Name: PrEP Bot: Privacy-First Health Companion

Problem: Users skip PrEP due to stigma (anonymous tracking needed) and lack of real-time guidance (voice/kidney triage required). *"No names!" + "Chatbot must warn about kidneys."*

Customer: South African PrEP users, especially: Low-literacy populations (voice/SMS), Privacy-conscious youth (emoji IDs), High-risk groups (kidney triage)

Solution: Hybrid AI/human chatbot with: **Anonymous Reminders** (SMS + emoji IDs), **Multilingual Voice** (Zulu/Xhosa + repeat), **Clinic Finder** (Real-time maps + policy alerts) **Kidney Triage** (Red emergency doctor button)

Screenshots of you AI Chatbot

Link of prototype chatbot(Link of finalised chatbot on slide 14):

https://app.wotnot.io/bot-preview/YUKyWqZniTTv215708064051aWCKcuDL
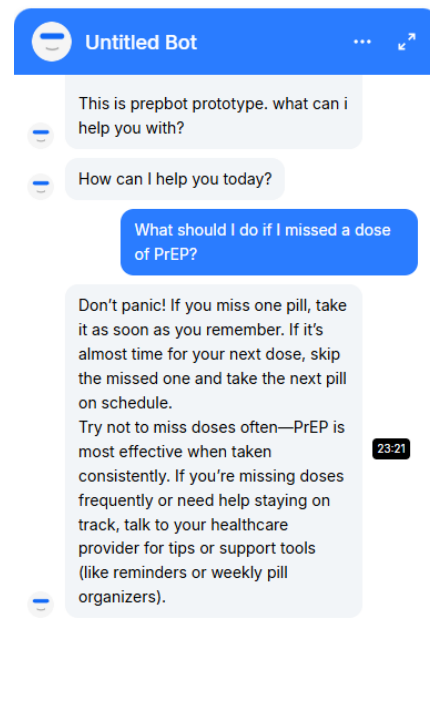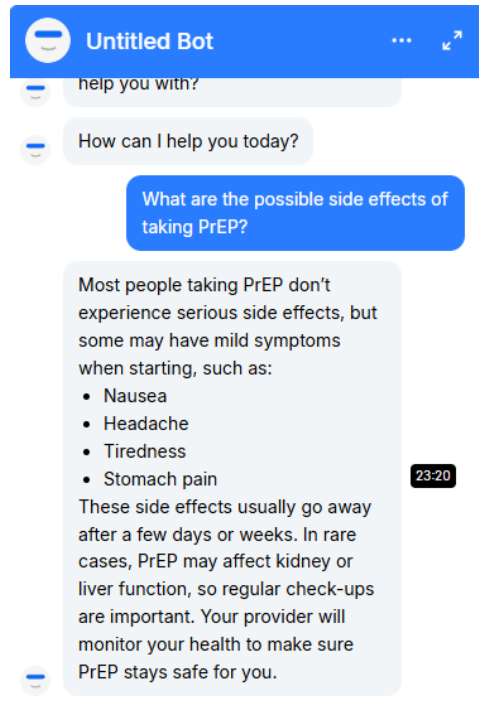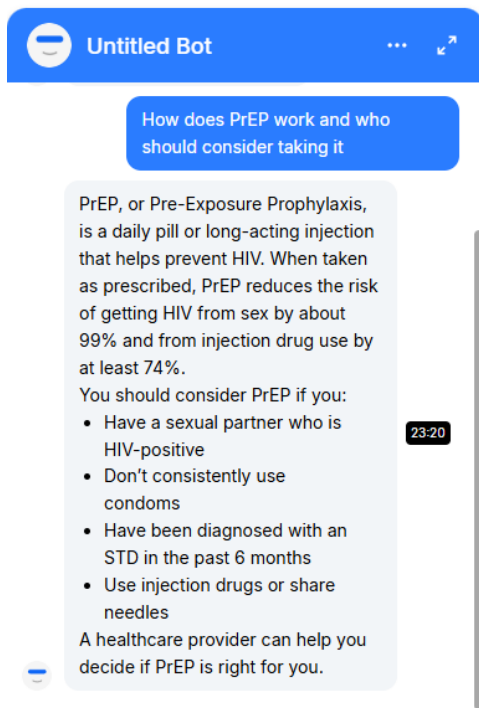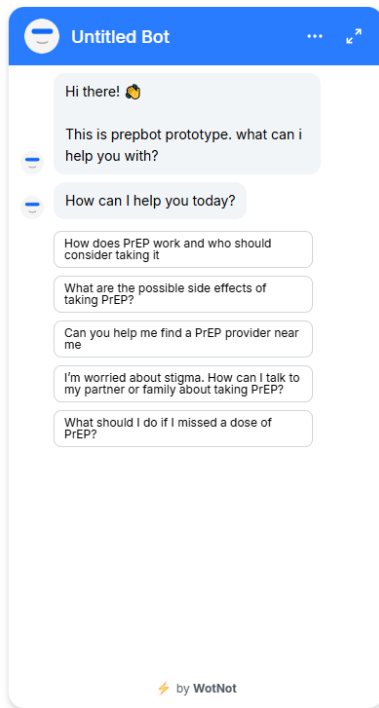
Technical overview: the design process

Identify: Users are in need of prEP resources that are reliable that protects their identity and provides the necessary resources for prEP.

Explore:Users need a resource that serves as a multifunctional platform that helps them with their prEP queries that is completely anonymous.

Design:Ai chatbot is designed to answer users questions.The chatbot provides resources available to users.

Create: Ai chatbot that provides generated answers as well as personalized answers, chatbot is designed to provided resources based on geographical location, as well as ask a doctor option for users.

Try: Includes user user testing. User tests the chatbot. The aim of the testing is to ensure the chatbot is easy to navigate and checks all the boxes for inclusivity and resources it out.

Make:Deploy chatbot that is in order of all technical considerations and is fully developed.

Revised screenshots of your AI Chatbot

https://app.wotnot.io/bot-preview/7DYGhVWnbbSN133931226905UozxsfoW

Ethical considerations

Ethical considerations are factors that need to be considered before conducting a project. Ethical considerations are the foundation that will ensure a project is conducted in a proper manner.

Ethical considerations when creating a chatbot that deals with prEP is:
- **User's privacy**: Users interacting with the chatbot may share private information, and therefore should be reassured that their information is protected. Keeping this in mind, the interaction between the user and the chatbot is anonymous.This ensures that the information shared won't be linked to a specific person, and will make users feel more safe to share information and make use of the chatbot,especially considering the stigma surrounding HIV and the use of prEP.
- **Accuracy about information being shared:** It is crucial that all information the chatbot shares with its' users are accurate and vetted by medical professionals.
- **Inclusivity:** It is common for the healthcare system to only cater for a specific group of people. This means that there is typically not many resources available for people such as individuals belonging to the LGBTQ+ community. It is important to supply information and resources that is relevant to everybody.
- **Digital literacy:** an Important factor when designing an AI chatbot is the fact that not everyone using the bot has the same level of knowledge of how to use the bot, therefore the bot should be easy to use and navigate.

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Business Overview

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
• Platform developers • Cyber-security experts • Public health partners such as hospitals and clinics • Medical advisors such as doctors • NGOs	• Provides resources based on geographical location • Assists user with relevant questions and resources • Creates link between user and doctor • Provides assistance with prescriptions for prEp	• High functioning chatbot • Reliable and fast responses • 24/7 availability • Medical expertise • Fast prescriptions • Easy accessibility • Inclusivity- user friendly for everybody and all communities • Easy to use	• Personal assistance • Virtual assistance • Medical advisory • Support relationship - adaptable for all users, multiple language use • Automated replies	• Hospitals and clinics • Private medical practitioners • Self-testing apps

Key Resources
- Technological components such as computers etc.
- Funding
- Secure internet connection
- Developing platform such as Wotnot to build and deploy chatbot
- Health advisors such as doctors who treat users in relation to the medication prEP.

Channels
- Distribution channels
- Apps
- The Internet
- Pharmacy apps
- Hospital/Clinic websites
- SMS
- Self-testing platforms

User Segments
- Sexually active individuals
- Individuals seeking information about prEP
- Individuals seeking resources for prEP