RESEARCH HUB

KIOSK APP PRESENTATION

Presented by Bensly Pierre

COMP 3451

FACTS
ABOUT ME

- With expertise in full-stack development, Microsoft Power Platform, and user-centered design, I focus on creating practical, user-friendly solutions.

- My experience in mobile and web app development has been refined through academic and co-op opportunities, ensuring a polished outcome.

BENSLY PIERRE
Final-year Computer Science Student at TRU

PROJECT
Proposal

The manual sign-in sheets at the TRU Research Hub are inefficient and error-prone, resulting in incomplete records and wasted staff time. To improve this, the kiosk app aims to enhance usability with goals focused on:

- **Effectiveness & Efficiency**: Clear instructions and minimal steps for sign-in/out.
- **Learnability & Memorability**: User-friendly for first-timers and efficient for repeat visitors.
- **Efficiency**: Reducing user sign-in time.
- **Engagement**: Interactive design for seamless sign-in/out completion.

Target Users

Visitors & Staff at the TRU Research Hub

Reduce task completion to under **30 seconds**

Sarah

Organized   Studious   Reserved

"I don't want to spend more than 30 seconds signing in."

Age: **22**
Work: **Student**
Family: **Single**
Location: **Kamloops, BC**
Visit Frequency: **3-4 times a week**

Goals

- Quickly sign in and out of the TRU Research Hub
- Ensure that her personal information is secure and handled responsibly when she signs in.

Bio

Sarah is a full-time undergraduate student at TRU, majoring in Computer Science. She frequently visits the TRU Research Hub to work on her assignments, collaborate with peers on projects, and conduct research for her courses.

As a tech-savvy individual, Sarah is comfortable using digital devices and prefers systems that are intuitive, quick, and efficient. She typically visits the hub two to three times per week, often during the afternoon when it's less crowded.

Frustrations

- Finds the current paper-based sign-in system inefficient and time-consuming.
- Has privacy concerns when signing in manually, as the sign-in sheet is visible to other visitors

Motivations

Efficiency

Privacy-Conscious

Tech-Savvy

Time-Conscious
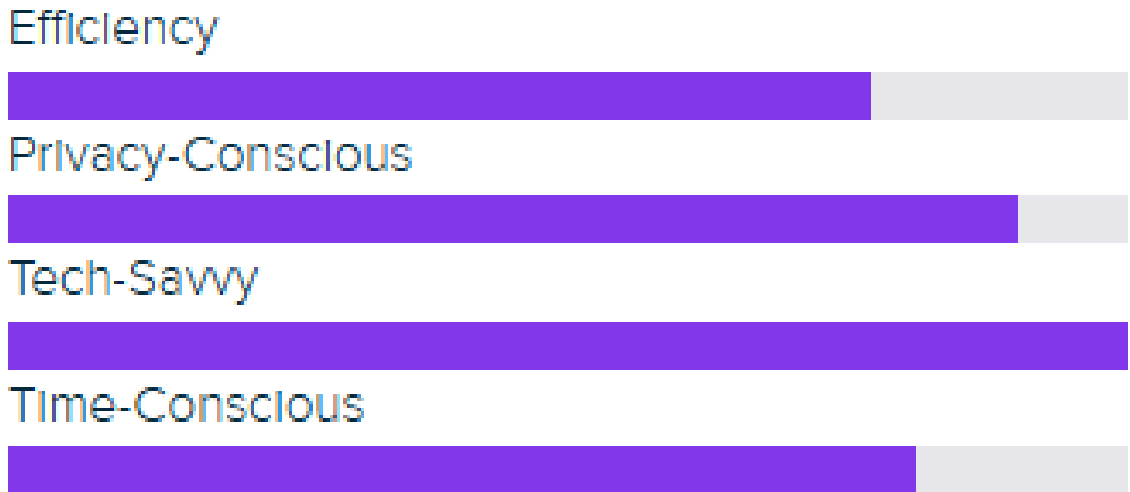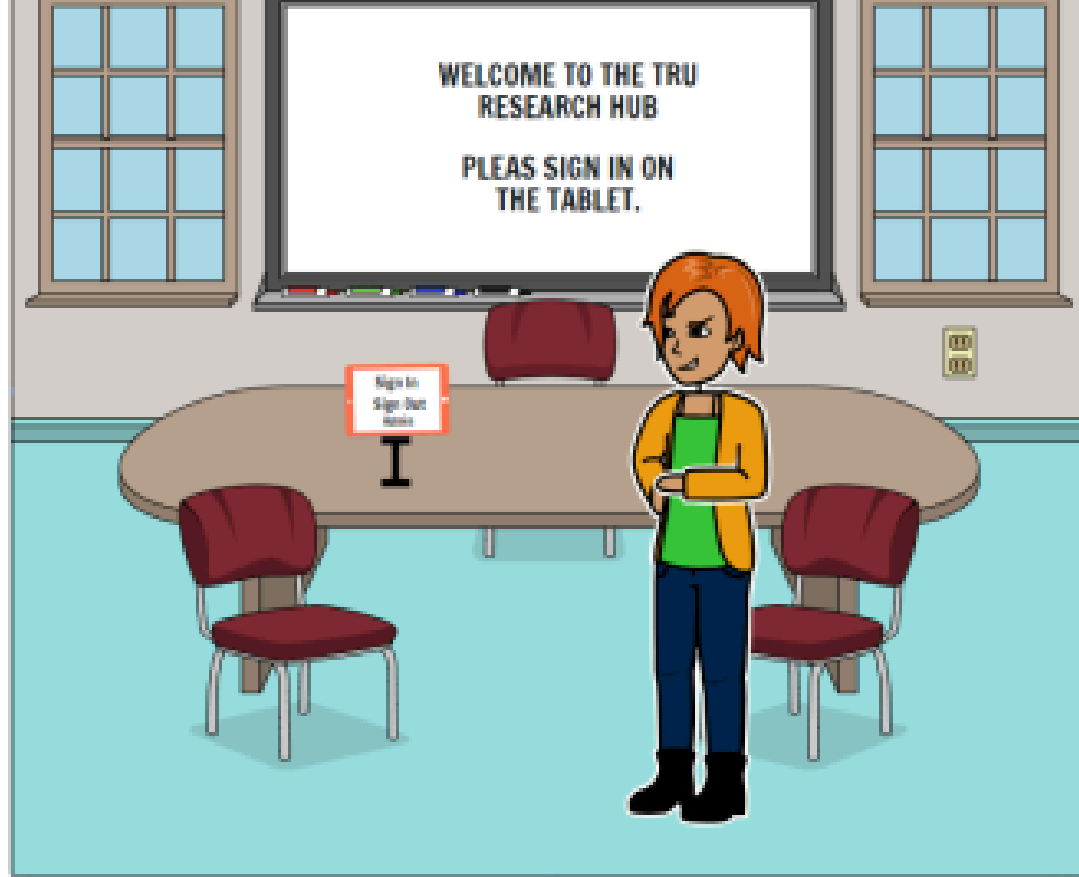
Sarah enters the hub and encounters signage instructing her to sign in using the new digital kiosk

Sarah walks up to the kiosk and selects "Sign In" and enters the requested information.

The kiosk confirms her sign-in. Sarah finishes the process in under 30 seconds and begins her work.

When Sarah is done her work, She walks over to the kiosk and she quickly taps "Sign Out".

Sarah Completes the One-Click Sign Out form to finalize her visit to the hub.

The system confirms visit. Sarah leaves happily and is impressed by the speed and convenience of the system.

DATA
GATHERING

Questionnaires and direct observations were conducted to identify pain points like low visibility of the sign-in sheet, lack of privacy, and inefficient manual processes. This informed our development of a more user-friendly system.

Questionnaires

10 Responses

Direct Observations

15 Visits

FINDINGS

- 60% of users expressed dissatisfaction with the existing system.

- 90% of users favored transitioning to a digital system.

- The average sign-in time with the current system was around 2 minutes.

- 100% of users emphasized the necessity for quicker processing.

PROJECT
REQUIREMENTS

- Quick and easy sign-in/out process in under 30 seconds.
- Visitor registration to minimize form-filling time.
- Intuitive interface with clear instructions and minimal steps.
- Capability to handle high traffic during peak times to ensure efficiency.

Intuitive and easy to use

Reduce task completion to under

30 seconds

DESIGNING ALTERNATIVES

Three low-fidelity prototypes were created with JustInMind and tested by users:

- **Prototype 1**: Simple, text-heavy interface but slow and inefficient.
- **Prototype 2**: Visually engaging with icons for digital-savvy users.
- **Prototype 3**: Selected for its balance of simplicity, speed, and clarity, featuring large buttons and minimal text.

Feedback: Users favored Prototype 3 for its speed, ease of navigation, and intuitiveness.
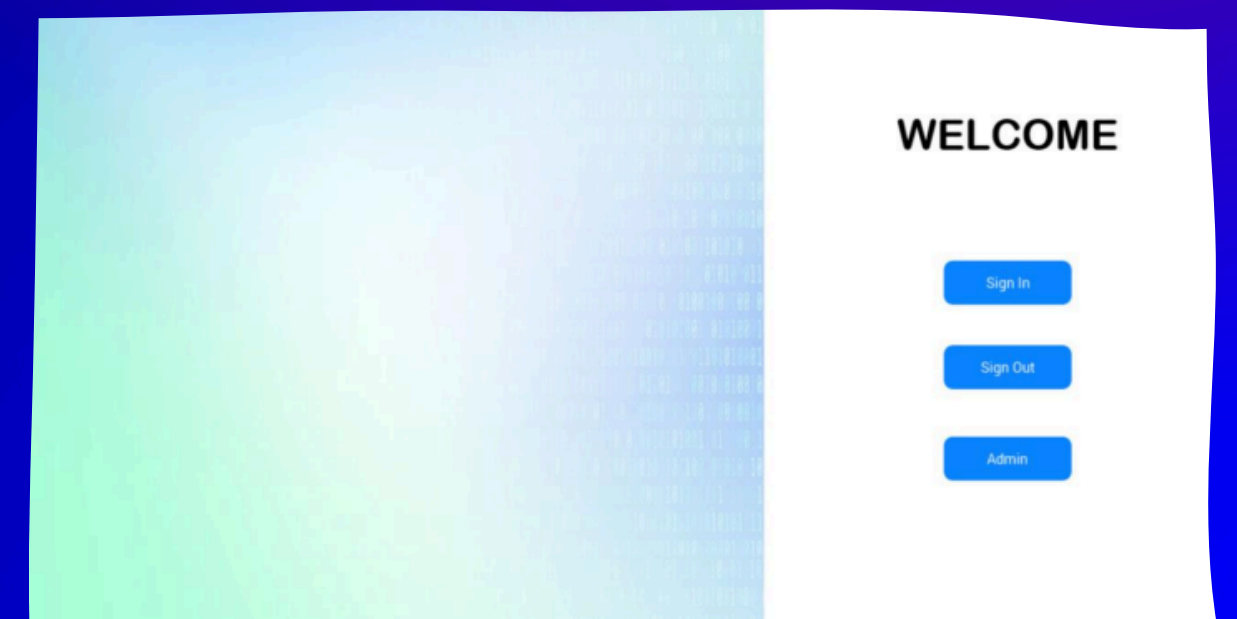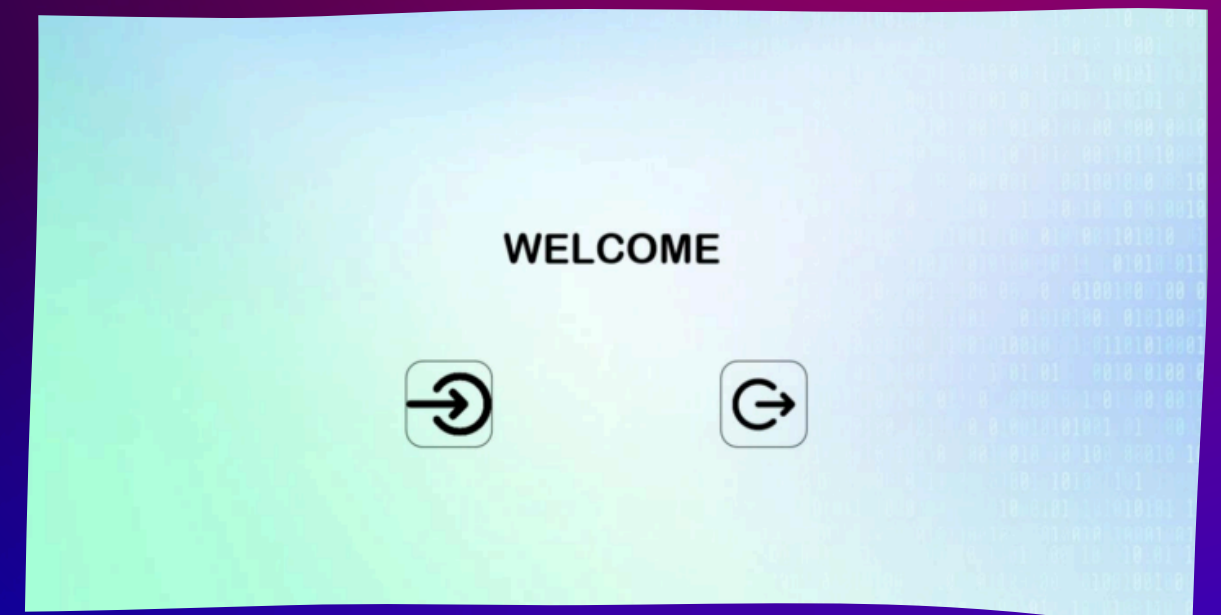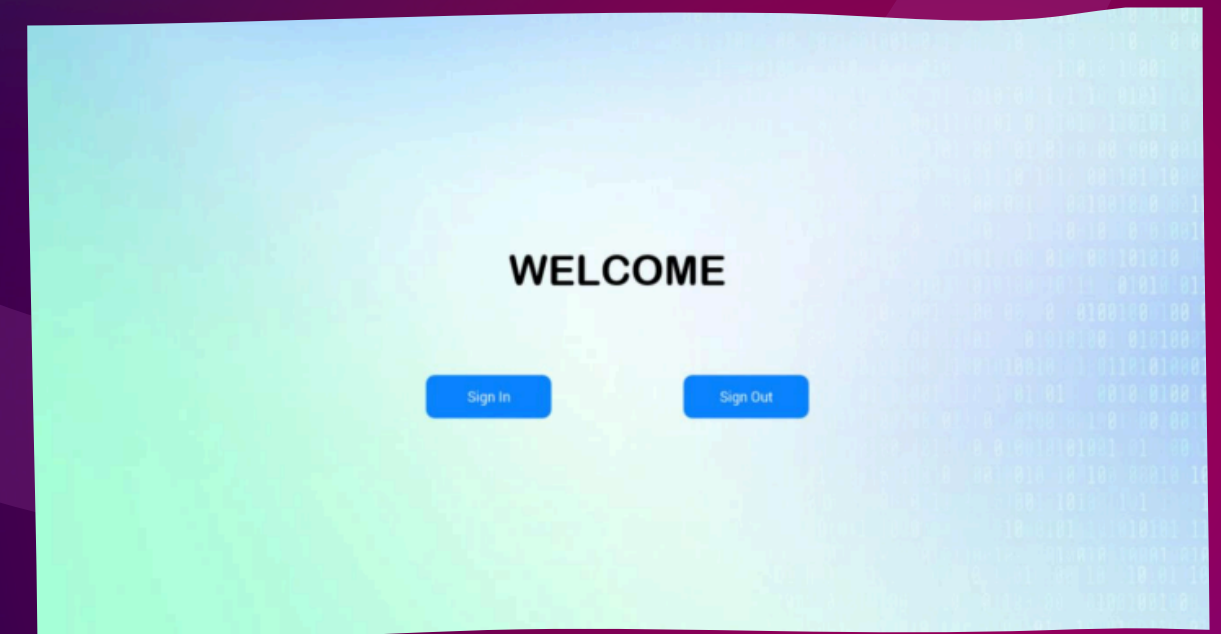
PROJECT
PROTOTYPING

Built an efficient application on Microsoft Power Apps, integrating with Microsoft 365 Dataverse and leveraging PowerFx and YAML.

Key features:
- Dropdown sign-in/sign-out processes reducing manual user input.
- Real-time updates to a centralized database for accurate reporting.

Challenges:
- Overcoming technical hurdles related to connecting the application to the Dataverse.
- Editing Code via the Microsoft Power Studio

EVALUATION

01

METHOD:

- Usability tests conducted with 10 participants evaluated core tasks like signing in, signing out, and addressing errors.
- Observational and quantitative data captured performance metrics and user feedback.

02

RESULTS:

- On average, completing any task during the initial use takes about 18.23 seconds.
- Task completion times dropped significantly for returning users, averaging just 9.38 seconds.
- User satisfaction ratings highlighted strengths in speed, ease of navigation, and overall experience.

03

FEEDBACK:

- Participants appreciated the intuitive design and responsive feedback.
- Recommendations included refining instructional clarity for first-time users to further enhance accessibility.
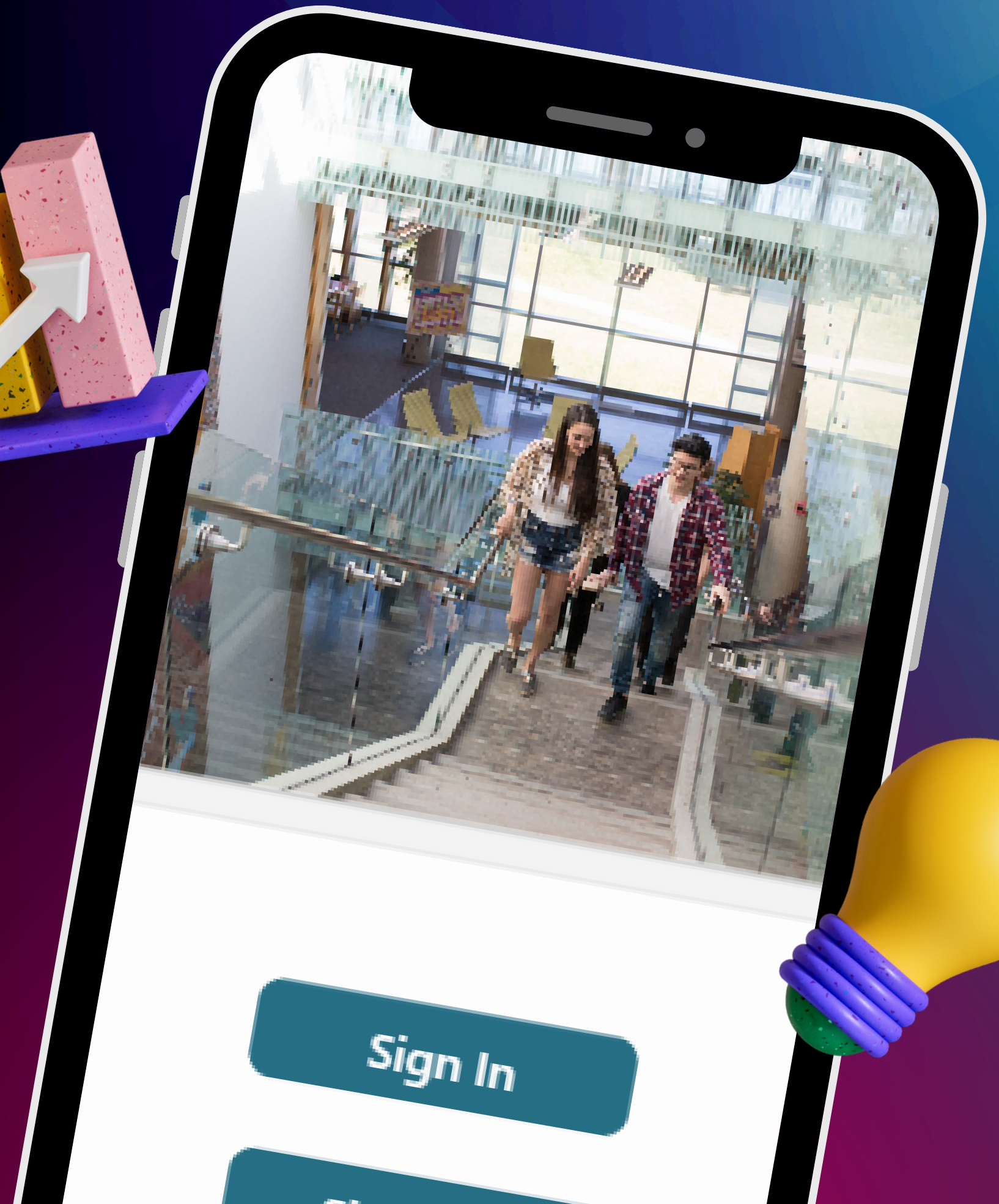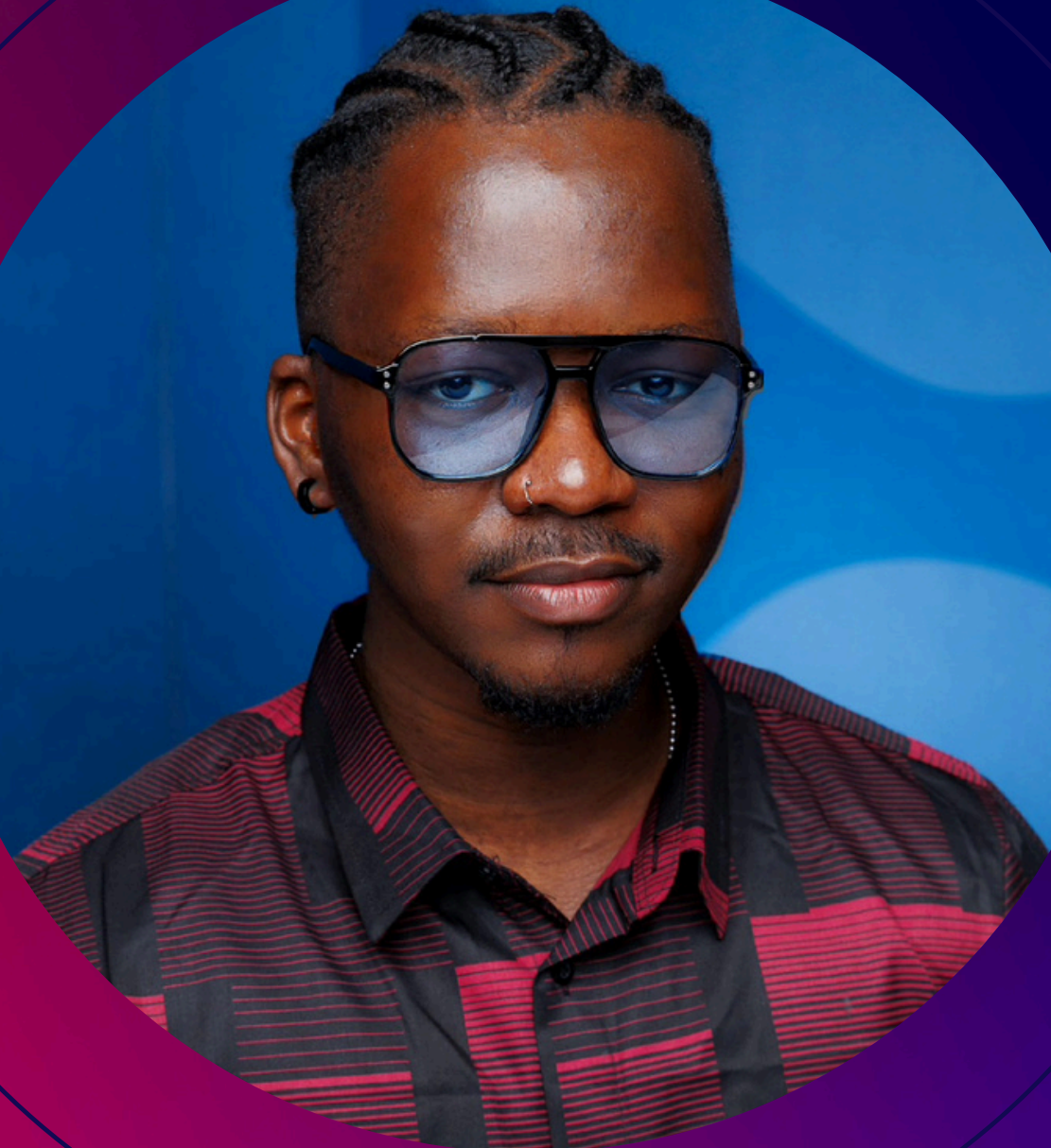
PROJECT
DEMONSTRATION

The high-fidelity prototype is fully operational, showcasing seamless integration with Microsoft 365 and delivering all promised features effectively.

Key functionalities demonstrated include:
- Quick and efficient sign-in and sign-out workflows.
- Accurate real-time data logging and intuitive error handling mechanisms.

Sign In

THANK YOU!

BENSLY PIERRE

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