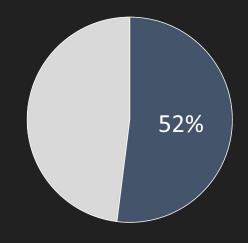
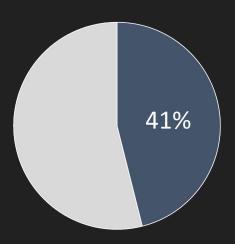
# Citi-Auth

Team 2/4

#### Customer's Preference



**Stronger Data Security** 



Login/authentication process made easier

### Traditional Security Measures

#### 2FA

- Login password
- OTP using Physical Token/Mobile Token/SMS



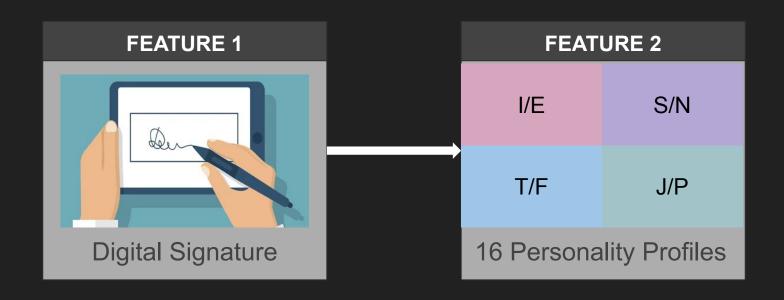
#### Biometrics Technologies

- Fingerprints and facial recognition
- Unique to each individual
- Can be duplicated



### **Proposed Security Features**

#### BEHAVIORAL BIOMETRICS



# Digital Signature



- Pattern recognition
- Stroke and speed detection
- Pressure and finger size
  - $\sqrt{}$  Passive authentication
  - $\sqrt{}$  Seamless user experience

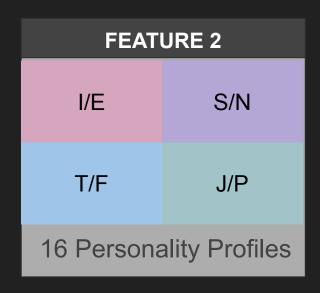
# Digital Signature - Implementation

Registration	Login/Authentication	Analysis of micro-behaviour
Submit 3 digital signatures	<ul><li>Login ID and passcode</li><li>Digital signature</li></ul>	<ul> <li>Cross-checked and matched</li> </ul>

# Pros and Cons of Digital Signature

Pros	Cons
- The collection of data points required for authentication is dynamic	<ul> <li>Signature may be difficult to do on a phone or laptop due to small screen or using a mouse to sign</li> <li>Requires collection of large amounts of 'behaviour' data of each client</li> </ul>

### Personality Profile Authentication



- Categorised into one of the 16 personality groups
- Recognition of user through the answers provided
- ert Personality is innate and cannot be stolen
- $\sqrt{}$  Unique profile creation that identifies the unique user
- $\sqrt{}$  Customise the user experience

#### Personality Profile Authentication - Implementation

Registration Login/Authentication Account Access

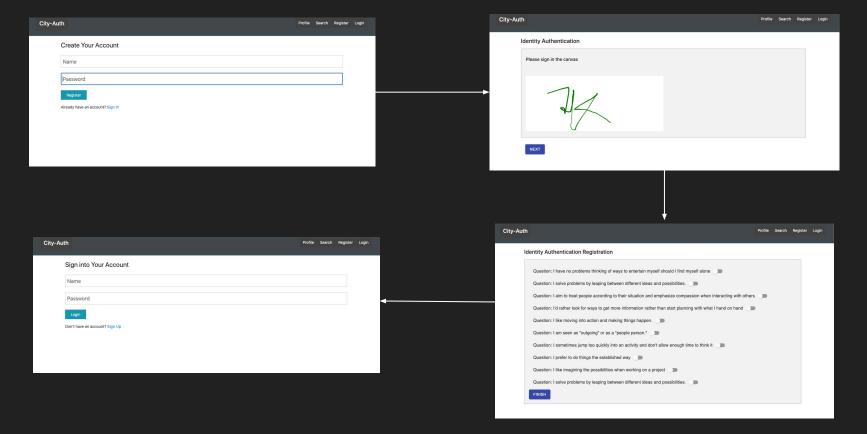
Answer 16 personality questions, with 4 questions to identify a specific trait.

- Login ID and passcode
- Answer 4 T/F
   personality questions

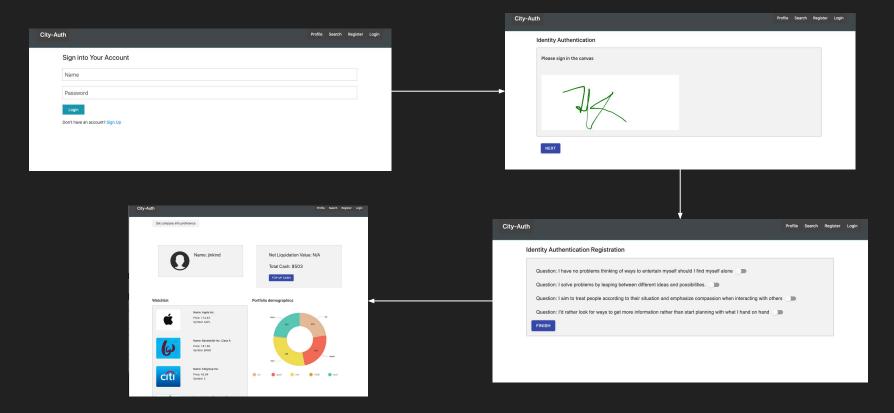
# Pros and Cons of the Personality Profile Authentication

Pros	Cons
- Dynamic security	- Personality questions answer may be subjected to environment or current emotions

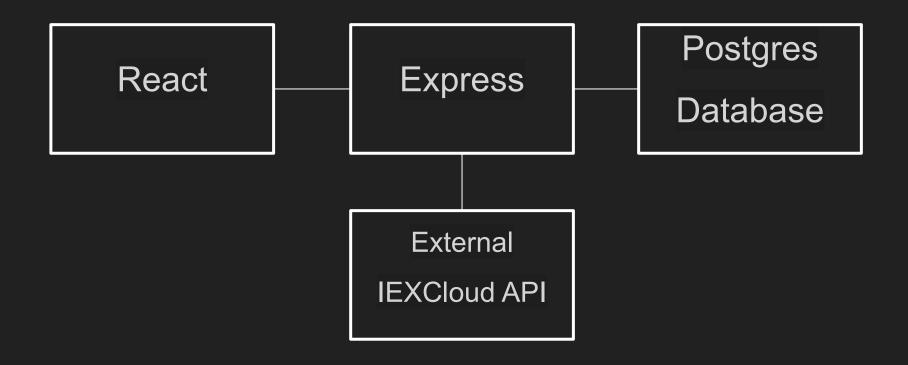
# User Flow (Registration)



# User Flow (Login)



#### Tech Stack



#### Possible Future Implementations

# Text-based approach for personality questions

Uses text-based answer for situation based questions.
 This answer can be ran through a neural network model which will indicate the users trait.

# Periodic update of stored data

 Digital signatures and answers to the personality questions should be updated

#### Speech-to-text

 User reads out text displayed on the screen which is processed using a language model to identify if its a user or a bot.

# THANK YOU

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