IEUK Facial Recognition Project

Plan the release of Facial Verification into a customer's banking app sign-in process. Summarise the objective and requirements of the project, create user stories and acceptance criteria, make a project management plan and organise communication methods.

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Objective and requirements

- Facial recognition software will be developed for a customer banking app. This can be used as a verification method in place of a passcode to allow users to sign into their banking app.
- Permission must be given to allow the app to use the devices camera to take a scan of the users face on setting up facial recognition for a person device.
- Software must be developed to read the geometry of the face. A facial signature will be developed by measuring distance between facial landmarks.
- Permission must be given to store this facial signature in a database of known faces.
- To login in the user face will be scanned and compared with the facial signature stored in the database for that user. If there is a match the user will be allowed to log in. If not the user will have to use an alternative method to log in.
- For security facial signatures should be encrypted before being stored in the database.
- For privacy facial signatures must be removed from the database if a user turns off facial recognition.
- For security facial recognition can only be set up by first verifying with a phone text code.

User stories

- User stories will be defined by speaking to users inside and outside the company to come up with short, non-technical sentences on what this facial recognition software should do. Surveys will be provided to users through the current banking app to understand how they would interact with the facial recognition option.
- **User Story.** *As a* customer, *I want to* log in using just facial recognition *so that* I can save time typing in a passcode. **Acceptance criteria.** *Given:* A customer is on the home page of their app previously set up with facial recognition. *When:* the customer scans their face. *Then:* It instantly recognises their face as linked to that account and lets them in.
- **User Story.** *As a* customer, *I want* my app to only recognise my face *so that* nobody else can access my account. **Acceptance criteria.** *Given:* A customer is on the home page of their app previously set up with facial recognition. *When:* Somebody else tries to scan their face. *Then:* It doesn't let that person into that devices account account.
- **User Story.** *As a* customer, *I want* to still be able to use a passcode sign-in *so that* I can log in when the camera isn't working. **Acceptance criteria.** *Given:* A customer is on the home page of their app previously set up with facial recognition but their camera is blocked. *When:* The customer chooses to log-in with passcode. *Then:* It checks the passcode and lets the user in.
- **User Story.** *As a* customer, *I want* the option to remove the facial recognition option *so that* I can instead always use a passcode. **Acceptance criteria.** *Given:* A customer is logged into their app previously set up with facial recognition. *When:* When they click remove facial recognition. *Then:* It removes their facial signature from the database.

User stories

- **User Story.** *As* the owner, *I want* the customer to first confirm their identity by text *so that* they can securely set up facial recognition. **Acceptance criteria.** *Given:* The customer has been sent a text to verify facial recognition . *When:* the customer enters the correct code from the text. *Then:* It will allow them to set up facial recognition.
- **User Story.** *As* the owner, *I want to* ensure permissions are granted *so that* there are no privacy violations. **Acceptance criteria.** *Given:* A customer is on the screen to set up facial recognition. *When:* the customer clicks scan face. *Then:* It first asks the customer to give permissions for camera and to store the facial signatures in a database.
- **User Story.** *As a* developer, *I want* the facial signatures to be first encrypted *so that* the data stored in the database is secure in case of hacking. **Acceptance criteria.** *Given:* A has scanned their face. *When:* their facial signature is added to the database. *Then:* It must first be encrypted.
- **User Story.** *As a* develop, *I want* the software to measure the distance between facial landmarks *so that* a facial signature can be developed and stored. **Acceptance criteria.** *Given:* A face is being scanned. *When:* The distance between all facial landmarks have been recorded. *Then:* This will be converted to a facial signature and stored in the database.
- The product owner will decide the priority of each user story which will then be made into a product backlog. 30 day sprints are worked through starting with the top priority user stories. The development team will handle this.
- Unit, integration and System tests are written for each acceptance criteria. Features developed from each sprint can be tested against their appropriate tests. The testing team will handle this.

Project management Plan

- At the start of each 30 day sprint, a Scrum development team will take on as much of the product backlog as they think they can turn into an increment of product functionality.
- Each team will have a meeting to decide what is going to be developed in that sprint. Here the sprint will be broken down into a list of tasks called the sprint backlog.
- During the sprint, the Scrum Master, will tea.ch and enforce Scrum practices. It will be their job to help the team make decisions and acquire resources
- Each morning at a SCRUM meeting each member of the team will be asked “What did you do yesterday? What will you do today? Are there any impediments in your way?”. Any problems will be recorded by the scrum master and discussed later in the meeting after each member has reported.
- At the end of a sprint a meeting will be held to collect feedback from the team to help in planning and working on the next sprint. Testing team will attend this meeting to full understand features created.
- As the next sprint begins the testing team will carry out unit, integrated and system testing on the features developed in the last sprint.
- Product backlog may be changed or reordered by the product owner at any point. Sprints continues until the product owner decides the facial recognition software meets appropriate requirements to be released.
- When all necessary user stories have been developed, acceptance testing will be performed by the testing team using alpha and beta testing to ensure that the product is ready to be released.

Communication Plan

- At Sprint Planning meetings the Scrum Master, Product owner and Team collaborate to select as much highest priority items from the product Backlog as possible to implement as an increment.
- The Product owner sets the Product Vision through communication with stakeholders and Scrum Team. They are responsible for maintaining the Product Backlog via continuous interaction with Clients and Stakeholders.
- At daily meetings the Scrum master makes sure every develop team member is on track and identifies any problem holding members back. Product owner may attend these meetings. They are in constant communication with the Scrum team. Any questions the team have around the requirements they can ask the Product Owner.
- At Sprint review meetings the team demonstrates functionality of each sprint backlog item that they completed during the sprint. Here the Product Owner, customers, and stakeholders invited to attend to accept user stories and identify new requirements. Customers discuss any additional needs or changes they want to see based on these demonstrations.
- Testing team can communicate with develop team to best understand the requirements and share results with eachother.
- Product owner may change or reorder the priority of the product backlog. Incomplete user stories will remain in the product backlog, and new user stories will be added to the backlog.
- After Sprint review meetings the Development team, Scrum Master and Product Owner Reflects on the effectiveness, productivity, quality, and satisfaction of their sprint process so far. Improvements resulting from these meetings are essential for agile self-organization.

Closing slide

- The deliverables of Objective and requirements, User stories, Project management plan and Communication plan have been provided