Initial Use Case Diagram

Diagram

Description automatically generated

Use Case Descriptions

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| --- | --- | --- | --- |
| Use Case ID: | 1 | | |
| Use Case Name: | Create Account | | |
| Created by: | Hazel | Last Updated by: |  |
| Date created: | 29 Jan 2023 | Date Last Updated: | 29 Jan 2023 |

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| --- | --- |
| Actor | User |
| Description | Users can create an account on the website application to store their personal information. Afterwards, their account is accessible remotely across different devices. |
| Preconditions | 1. Device must be connected to Wifi or Mobile Data |
| Postconditions | Users will be able to login with their email address and password. |
| Priority | High |
| Frequency of Use | Medium |
| Flow of events | 1. User clicks “Sign Up” to sign up as new user 2. System requests input for username, email and password 3. User enters  username, email address and password 4. The system  verifies the users’ email 5. The system verifies the user’s password 6. System sends a confirmation email to the user 7. When the user confirms his account via email, system logs username, email and password into the database |
| Alternative flow: | AF-S4: Email Address is invalid   1. If the email address already exists, system will display the message, “This email address is already used by an existing address” 2. If the email address does not exist, system will display the message, “This email address does not exist” 3. The website returns to step 2   AF-S5: Password is not strong enough   1. The website displays the message “Password is not strong enough! Your password should be at least 12 characters long and a combination of uppercase, lowercase, numbers and special characters” 2. The website returns to step 2 |
| Exceptions: | - |
| Includes | Login with Google Account   1. User logs in with linked Google Account 2. Using Google API to validate user account |
| Special Requirements: | - |
| Assumptions | User has a personal email |
| Notes and Issues | - |

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| Use Case ID: | 2 | | |
| Use Case Name: | User Login | | |
| Created by: |  | Last Updated by: |  |
| Date created: | 29 Jan 2023 | Date Last Updated: | 29 Jan 2023 |

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| --- | --- |
| Actor | User |
| Description | User logs into their account with an email address and password |
| Preconditions | Device must be connected to Wifi or Mobile Data |
| Postconditions | User will be able to login and retrieve users’ information, including recommended courses and colleges if they have previously taken the test |
| Priority | High |
| Frequency of Use | High |
| Flow of events | 1. User clicks “Login” to log into the website as an existing user 2. Website requests input for email address and password 3. User enters email address and password 4. Website validates Information with the account information in the database 5. if  the users’ input is validated, user logs in successfully |
| Alternative flow: | AF-S4: Incorrect email or password   1. Website displays the message “Incorrect email or password” 2. Website displays the message “Forgot Password?” 3. If user clicks on “Forgot Password”, user is prompted to reset password (Refer to use case 4) 4. Return to step 2 |
| Exceptions: | - |
| Includes | Login with Google Account   1. User logs in with Google Account 2. Website uses Google’s API to validate user account |
| Special Requirements: | - |
| Assumptions | User has an account |
| Notes and Issues | - |

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| --- | --- | --- | --- |
| Use Case ID: | UC03 | | |
| Use Case Name: | Verify Account | | |
| Created By: | Wee Teck | Last Updated By: | Gordon |
| Date Created: | 13 Feb 2023 | Date Last Updated: | 14 Feb 2023 |

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| Actor: | Database |
| Description: | System database verifies that the user account email and password exists and are matched. |
| Preconditions: | 1. Device must be connected to Wi-Fi or Mobile Data. 2. User must input their email and password. |
| Postconditions: | 1. User will be able to log in with their email account and password. |
| Priority: | High |
| Frequency of Use: | Medium |
| Flow of Events: | 1. System queries the database to find a match between the submitted user email and password. 2. On a successful match of the email and password, the user is able to log in. |
| Alternative Flows: | **AF-S1:** **No Match Found**   1. There does not exist an email with such a corresponding password in the database. 2. System displays the message “Invalid email account or password”. 3. User is redirected back to the login page. |
| Exceptions: | - |
| Includes: | - |
| Special Requirements: | - |
| Assumptions: | - |
| Notes and Issues: | - |

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| --- | --- | --- | --- |
| Use Case ID: | UC04 | | |
| Use Case Name: | Forget password | | |
| Created by: |  | Last Updated by: |  |
| Date created: | 29 Jan 2023 | Date Last Updated: | 29 Jan 2023 |

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| Actor | User |
| Description | User updates password |
| Preconditions | 1. Device must be connected to Wifi or Mobile Data 2. User must have an existing account |
| Postconditions | 1. User will have a new password used to log into their account |
| Priority | High |
| Frequency of Use | Low |
| Flow of events | 1. User clicks on the “Reset password” 2. System requests for input for email 3. System validates the email against the database 4. System send a confirmation email 5. User confirms via email to change their account password 6. System requests input for new password 7. User enters new password 8. Account password is updated and the user is able to log in |
| Alternative flow: | AF-S3: Email does not exist   1. Website displays the message “Email does not exist” 2. Return to step 2   AF-S7: New password is not strong enough   1. The system displays the message “Password is not strong enough! Your password should be at least 12 characters long and a combination of uppercase, lowercase, numbers and special characters” 2. System returns to step 6 |
| Exceptions: | - |
| Includes | - |
| Special Requirements: | - |
| Assumptions | User has a personal email |
| Notes and Issues | - |

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| --- | --- | --- | --- |
| Use Case ID: | UC05 | | |
| Use Case Name: | Take Test | | |
| Created By: |  | Last Updated By: |  |
| Date Created: | 29 Jan 2023 | Date Last Updated: | 29 Jan 2023 |

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| Actor: | User |
| Description: | System receives various inputs from the user which are used to recommend appropriate courses and universities. |
| Preconditions: | 1. The device must be connected to Wifi or Mobile Data 2. The user is either signed in as guest or existing user |
| Postconditions: | System responds by recommending to the user 10 suggested courses and respective colleges for each course |
| Priority: | High |
| Frequency of Use: | High |
| Flow of Events: | 1. The system conducts a personality test  (use case 7) 2. User completes personality test 3. The system requests for additional personal information (use case 6/8) 4. User inputs personal information 5. The system will display the top 10 recommended courses and the respective colleges to apply to for each course (use case 10) |
| Alternative Flows: | AF-S4: If the user does not input any personal information   1. The system will skip to step 7   AF-S5: If the User has not entered into the “region of residence” field   1. The system will skip to step 5 |
| Exceptions: | - |
| Includes: | 1. Personality Test (use case 7)    1. Uses Personality Test API 2. Personal information input field (use case 6/8) |
| Special Requirements: | - |

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| --- | --- | --- | --- |
| Use Case ID: | UC06 | | |
| Use Case Name: | Input academic qualifications | | |
| Created By: | Gordon | Last Updated By: | Hazel |
| Date Created: | 14 Feb 2023 | Date Last Updated: | 1 March 2023 |

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| Actor: | User, Database |
| Description: | User inputs their academic qualifications |
| Preconditions: | 1. Device is connected to Wi-Fi or Mobile Data. 2. User is currently logged into an account. 3. User has completed the RIASEC personality test. 4. User has submitted their top three subject interests. |
| Postconditions: | 1. User’s academic qualifications, either in the form of GCE A Level grades or Polytechnic GPA, must be inputted 2. User will be directed to course recommendation page |
| Priority: | High |
| Frequency of Use: | High |
| Flow of Events: | 1. User is presented with fields to submit their personal information including their academic qualifications. 2. They can toggle between ‘A Levels’ and ‘Polytechnic’. 3. The ‘A Levels’ option displays four dropdown boxes to select grades for their 3 H2 and 1 H1 subjects, while the ‘Polytechnic’ option displays an input field for User to input their GPA. 4. User selects “Submit” to submit their information. 5. System saves user input into database. 6. System will then guide users to UC010: Recommendations |
| Alternative Flows: | - |
| Exceptions: | - |
| Includes: | - |
| Special Requirements: | - |
| Assumptions: | - |
| Notes and Issues: | School Diplomas include GCE A Levels and Polytechnic |

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| Use Case ID: | UC07 | | |
| Use Case Name: | Personality Test | | |
| Created By: |  | Last Updated By: |  |
| Date Created: | 29 Jan 2023 | Date Last Updated: | 29 Jan 2023 |

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| Actor: | User, Personality test API |
| Description: | User answers questions about their personality and receives a corresponding Myers Briggs Personality type based on their responses. |
| Preconditions: | 1. Device must be connected to Wifi or Mobile Data 2. The user is either signed in as guest or existing user |
| Postconditions: | 1. User is shown their personality type 2. System stores users’ personality type |
| Priority: | High |
| Frequency of Use: | Low |
| Flow of Events: | 1. User clicks “Proceed” to begin the personality test 2. User completes a personality test via a personality test API 3. User is shown their personality type 4. System stores users’ personality type 5. System will then guide users to UC08: Subject Interests |
| Alternative Flows: | - |
| Exceptions: | EX-1: If the system experiences connection errors 3 consecutive times   * 1. The system displays the message “Network connection error. Please check your internet connection and try again.”   2. The system does not obtain the information on personality type |
| Includes: | - |
| Special Requirements: | - |
| Assumptions: | - |
| Notes and Issues: | - |

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| Use Case ID: | UC08 | | |
| Use Case Name: | Input subject interests | | |
| Created By: | Hazel | Last Updated By: | Hazel |
| Date Created: | 7 Apr 2023 | Date Last Updated: | 1 March 2023 |

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| --- | --- |
| Actor: | User, Database |
| Description: | User inputs their top three subject interests |
| Preconditions: | 1. Device is connected to Wi-Fi or Mobile Data. 2. User is currently logged into an account. 3. User has completed the RIASEC personality test. |
| Postconditions: | 1. User’s top three interested subjects are recorded in the database 2. User is directed to the page to input their academic portfolio |
| Priority: | High |
| Frequency of Use: | High |
| Flow of Events: | 1. User is presented with 3 dropboxes to select their favorite subjects from the options presented 2. User selects “Submit” to submit their information 3. System saves user input into database. 4. System will then guide users to UC06: Input academic qualifications |
| Alternative Flows: | **AF-S1: Missing input**   1. System displays error message “Please select an item in the list” 2. Return to step 1. |
| Exceptions: | **-** |
| Includes: | - |
| Special Requirements: | - |
| Assumptions: | - |
| Notes and Issues: | - |

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| Use Case ID: | UC09 | | |
| Use Case Name: | View course-specifics | | |
| Created By: | Gordon | Last Updated By: | Hazel |
| Date Created: | 15 Feb 2023 | Date Last Updated: | 1 March 2023 |

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| Actor: | User |
| Description: | System displays information about course and university |
| Preconditions: | 1. Device is connected to Wi-Fi or Mobile Data 2. User must be logged into an existing account 3. User has selected a recommendation |
| Postconditions: | System displays university description, ranking, Course description, ranking, IGP and employability outcomes of selected course as well as campus location. |
| Priority: | High |
| Frequency of Use: | High |
| Flow of Events: | 1. System displays    1. University    2. IGP    3. Related Subjects    4. Prerequisite Subjects    5. Additional Requirements    6. GES Data |
| Alternative Flows: | - |
| Exceptions: | - |
| Includes: |  |
| Special Requirements: | - |
| Assumptions: | - |
| Notes and Issues: | - |

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| Use Case ID: | UC10 | | |
| Use Case Name: | Recommendations | | |
| Created By: | Gordon | Last Updated By: | Nichele |
| Date Created: | 15 Feb 2023 | Date Last Update: | 1 March 2023 |

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| Actor: | User |
| Description: | Users are able to view their Holland Code as well as the course and university recommendations for them. |
| Preconditions: | 1. Device is connected to Wi-Fi or Mobile Data. 2. User is currently logged into an account. |
| Postconditions: | 1. User can view Holland Code, course and university recommendations 2. User can use the Course Search function to efficiently look for specific course recommendations. |
| Priority: | High |
| Frequency of Use: | High |
| Flow of Events: | 1. System outputs a set of recommendations to the user 2. User views detailed information of course and respective universities via UC09: View course-specific information |
| Alternative Flows: | - |
| Exceptions: | - |
| Includes: | - |
| Special Requirements: | - |
| Assumptions: | - |
| Notes and Issues: | - |