**Testing Result**

* There might be slight differences between the screenshots in the below tests and the latest version of the app GUI, due to small design changes during the period of testing

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| **Test Plan** | **Test Description** | **Expected Result** | **Actual Result** | **Comments on Actual Testing Result** |
| **Android Application** | | | |  |
| 1.1 | Users should be able to login with correct username, password and security code, or visit Lloyds mobile website | The first page user will see is the login page. |  | See screenshot |
| 1.1.1 | Users should be able to login with correct username, password and security code. | After inputting correct login details, the app should login to the profile page and present correct information. | loginSuccess.PNG | This profile page presents the correct information for this user account |
| 1.1.2 | User can chose to visit Lloyds mobile website instead | After clicking on the ‘Visit our website’ link, a browser should be opened and directed to Lloyds bank mobile website |  | See screenshot |
| 1.2 | Incorrect login username, password and security code must not be allowed access to any further part of the application. | An error message telling the user to re-enter login username, password and security code will be shown. |  |  |
| 1.2.1 | Blank username | An error message telling the user to enter login username will be shown. | LoginUsernamelank.PNG | An error message on UserId input textfield is shown, with error message ‘Your username cannot be empty. Please enter your username correctly’ |
| 1.2.2 | Blank password | An error message telling the user to enter password will be shown. | LoginPasswordBlank.PNG | An error message on password input textfield is shown, with error message ‘ Your password cannot be empty. Please enter your password correctly’ |
| 1.2.3 | Blank security code | An error message telling the user to enter security code will be shown. | SecurityBlank.PNG | An error message in security input box is shown, with error message ‘This field cannot be empty. Please enter your indicated character from your security phrase’ |
| 1.2.4 | Incorrect username or password | An error message telling the user to re-enter login information will be shown. | loginWrong.PNG | See screenshot |
| 1.2.5 | Incorrect security code | An error message telling the user to re-enter security code will be shown. |  | See screenshot |
| 1.3 | Google Play service should only be allowed to use when the user choose to. | Users who choose not to use Google account to login to the Google Play service will have no access to some functionality like achievements and leader board, and these functionality will be disabled. |  |  |
| 1.3.1 | Users can choose to login to google account or not | After user logged in to profile page, the app will not connect google account unless the user click ‘sign into google play’ button. | NotSigninGoogle.PNG | The screenshot shows that before user login to Google Play service, there are only three buttons, and user has no access to achievements or leader board |
| 1.3.2 | Users can choose to login to google account and get access to achievement and leader board | After clicking the ‘sign into google play’ button and logging into google account, users can connect google play account with the app, and two more buttons will be shown to access achievements and leader board |  | The screenshot shows that after user logged into Google Play service, there are two more buttons shown below the green one, for achievements and leaderboard respectively, and the ‘sign into google play’ button has changed to sign out from google play’ |
| 1.4 | The app should log out automatically after five minutes inactivity | After five minutes inactivity, the user should be logged out automatically to the login page, and a logout message should pop up. | LogoutTimeout.PNG | See screenshot |
| 1.4.1 | The app should log out normally if user uses the logout button in the menu | A dialog should pop up with two choices; if YES the app should logout; if NO the app should return the last page | logout.PNG | See screenshot |
| 1.5 | User should be able to pull nearest Lloyd Bank ATMs and branches | The ATMs and branches should be pulled in and displayed via Google Maps allowing the user to use its interface to navigate to the ATM or branch. |  |  |
| 1.5.1 | If the location service is disabled on the phone, then user cannot use finding ATMs and branches services | An error message should be shown to inform that the location service is disabled |  | See screenshot |
| 1.5.2 | Use city name to find ATM | search ATMs in York |  | The location services found several ATMs using the city name ‘york’ |
| 1.5.3 | Use post code to find ATM | Search ATMs using postcode ‘NE1’, should show all the ATMs in these area |  | The location services found several ATMs using the post code |
| 1.5.5 | Use post code to find branches | Search branches using postcode ‘NE1’, should show all the branches in these area |  | The location services found several branches using the post code |
| 1.5.6 | Use city name to find branches | Search branches using city name ‘York’’, should show all the branches in these area |  | The location services found several branches using city name ‘york’ |
| 1.6 | Graphics should render properly regardless of device’s screen size and should be appropriately proportionate in portrait mode. | On large scale devices, the graphics and layout should render so that the components scale to the larger screen size. And on smaller screen sizes the components should adjust so that they do not overlap each other. |  |  |
| 1.6.1 | Use Nexus S 480 x 800 resolution | The main content should be rendered properly and user should be able to scroll up and down to view the whole page | screensize4.PNG | The main account information box is rendered properly with no margin to the edge of the screen |
| 1.6.2 | Use Galaxy Nexus 720 x 1280 resolution | The main content should be rendered properly and user should be able to scroll up and down to view the whole page | screensizeGN.PNG | The main account information box is rendered properly with small margin to the edge of the screen |
| 1.6.3 | Use Nexus 6  1440 x 2560 resolution | The main content should be rendered properly and user should be able to scroll up and down to view the whole page | screensize6.PNG | The main account informaiton box is rendered properly with slightly big margin to the edge of the screen |
| 1.7 | Transactions should correctly update the information stored in the web backend. | If a user does have enough funds then the transaction will proceed as normal and will update on the backend. |  |  |
| 1.7.1 | Before transaction | The current account balance should be 0 | transacBefore.PNG | See screenshot |
| 1.7.2 | Making transaction | Making transactions to another bank account with correct info | trasacPre.PNG | See screenshot |
| 1.7.3 | After transaction | After making transaction, the current account balance should be -10 | TransacAfter.PNG | See screenshot |
| 1.8 | Transactions that have erroneous transfer details should fail with a warning to be aware in the future. | If the user attempts to enter some transaction with erroneous data then an error message must be shown and the transaction will be aborted. |  |  |
| 1.8.1 | Blank account number | An error message telling user to enter the account number will be shown. | payment1.PNG | An error message is shown on the account number input textfield, with error message ‘The account number must only contain numeriacal digits’ |
| 1.8.2 | Incorrect account number which is less than 8 digits | An error message telling user to re-enter the account number will be shown | payment2.PNG | An error message is shown on the account number input textfield, with error message ‘The account number must be 8 digits long’ |
| 1.8.3 | Blank sort code | An error message telling user to enter the sort code will be shown. | payment3.PNG | An error message is shown on the sort code input textfield, with error message ‘The sort code msut be six digits long.’ |
| 1.8.5 | Incorrect sort code which is less than 6 digits | An error message must be shown | payment6.PNG | An error message is shown on the sort code input textfield, with error message ‘The sort code must be six digits long’. |
| 1.8.4 | Blank amount number | An error message telling user to enter the amount number will be shown. | payment4.PNG | An error message is shown on the amount input textfield, with error message ‘The payment must not be empty. Please enter an amount to pay’ |
| 1.8.5 | Wrong transaction information | An error message must be shown and the transaction will be aborted. | paymentFail.PNG | See screenshot |
| 1.8.6 | Erroneous transaction amount (more than the available funds in the account) | An error message must be shown and the transaction will be aborted. |  | See screenshot |
| 1.9 | Transfer that have erroneous transfer details should fail with a warning to be aware in the future. | If the user attempts to enter some transfer with erroneous data then an error message must be shown and the transfer will be aborted. |  |  |
| 1.9.1 | Blank amount information | An error message must be shown | transferblank.PNG | An error message is shown on the amount input textfield, with error message ‘The payment amount must not be empty. Please enter an amount to pay’ |
| 1.9.2 | Erroneous transfer amount (more than the available funds in the account) | Transfer should fail with a warning to be shown | transferInsuff.PNG | See screenshot |
| 1.9.3 | Only one bank account cannot make transfer | An error message will be shown. | transferFail.PNG | See screenshot |
| 1.10 | Transfer should correctly update the information stored in the web backend. | If a user does have enough funds then the transfer will proceed as normal and will update on the backend. |  |  |
| 1.10.1 | Before transfer | Before transfer, current account balance is -10, savings account balance is 0 | TransacAfter.PNG | See screenshot |
| 1.10.2 | Making transfer | Transfer 20 pounds from savings account to current account | transferMoney.PNG | See screenshot |
| 1.10.3 | After transfer | Current account balance should be 10, and savings account balance should be -20 | TransferAfter.PNG | See screenshot |
| 1.11 | Account Information Page should present correct account information | The account information page should present the account username, account number, sort code, balance and available funds | accountInfo.PNG | See screenshot |
| 1.12 | Transaction History page should present correct transaction history information, and the expandable list should be working properly |  |  |  |
| 1.12.1 | If there is no transaction history, then | There should be a message telling user no transactions history to be shown | noTransac.PNG | See screenshot |
| 1.12.2 | The transaction history should show all the income and outgoing transactions | The transaction history page should present all the transaction history in expandable lists, and green arrow for incoming money, red arrow for outgoing money, and special tags for tagged transactions |  | See screenshot |
| 1.13 | Notification page should present all the notification received from backend | All the notifications that received so far and not yet discarded by user should be shown |  | See screenshot |
| 1.13.1 | The backend website should be able to send notifications to the user | sendNotification.PNG | | At the website backend, send information ‘Your balance reached 0’ to Yessengerey Bolatov’s account |
| 1.13.2 | The notification from website backend should be received by user | The notification page in the app should show the latest notification | receiveNotification.PNG | Yessengerey received the notification on the app |
| 1.13.3 | The notification from website backend should be received by user | The broadcast receiver should receive the notification as well | notificationBroadcast.PNG | The broadcast receiver of the andorid phone also received notification |
| 1.14 | Feedback page should be working if a feedback is submitted |  |  |  |
| 1.14.1 | Fill the feedback form | The rating star and text area should be working properly | feedbackFill.PNG | Rate 4 stars and feedback message ‘Good App! :)’ and submit the feedback |
| 1.14.2 | If the feedback is not completed, it cannot be sent | An error message will be shown | Feedbackfail.PNG | Rate 5 stars but leave the feedback textarea blank, and get an error message |
| 1.14.3 | Submit the feedback form | A submit success page will be shown | feedbackfinish.PNG | See screenshot |
| 1.14.4 | Receive feedback form in team e-mail box | The team email box should receive the message and should be the same as the feedback | FeedbackSuccess.PNG | The team email box received the feedback information with ‘RATING 4.0 FEEDBACK Good App! :) ‘, which is the same as the previous submitted feedback |
| 1.15 | Setting page should be able to change the notification, weekly email etc. | User can set email notification, push notification and wearable notification on this page. | Setting.PNG | See screenshot |
| 1.16 | Health system |  |  |  |
| 1.16.1 | The goal setting page should present goals correctly | Same as description | setGoal.PNG | Set goals with spend £500, save £50, Overdraft £0 and Donate No |
| 1.16.2 | The health page should show the correct health score and all the progress for each goal | Same as description | health.PNG | After setting goals, the account health page shows the same goals as the set goals page |
| 1.17 | Google Play services | Most functionality are provided by Google Play services |  |  |
| 1.17.1 | Achievement page using Google Play services | The Achievement page should show all the achievement progress | achievementPage.PNG | All the achievements are shown on this page with progress bars |
| 1.17.2 | Leader board using Google Play services | The Leader board page should show all the leader board information | leaderboardPage.PNG | All the information about leaderboard is shown and user can view different leaderboard for this week, month etc. Also user can select social or all to compete with only friends or everyone who is using this app . |
| 1.18 | The other product page should show a website page of Lloyds bank | Same as description |  | The Other product page shows the modified page of the official Lloyds bank website |
| 1.19 | The tag analysis page shows a pie chart for all the outgoing transactions in different categories, with clear notations at the bottom, and has choices to set time period, or show actual values for each category | The tag analysis page should show a pie chart for all outgoing transactions in a set period of time, with clear notations at the bottom |  | See screenshot |
| 1.19.1 | The tag analysis page should show a pie chart for all outgoing transactions in a set period of time, with clear notations at the bottom, and if the Show values id ticked then all the actual amount of money will appear next to each category | Same as description |  | See screenshot |
| 1.20 | The help manual on most pages should work properly and provide correct information |  |  |  |
| 1.20.1 | Profile page | A help dialog should pop op if user tap the question mark in the upper-right corner |  | See screenshot |
| 1.20.2 | Account dashboard | A help dialog should pop op if user tap the question mark in the upper-right corner |  | See screenshot |
| 1.20.3 | Account Information | A help dialog should pop op if user tap the question mark in the upper-right corner |  | See screenshot |
| 1.20.4 | Transaction history | A help dialog should pop op if user tap the question mark in the upper-right corner |  | See screenshot |
| 1.20.5 | Make a payment | A help dialog should pop op if user tap the question mark in the upper-right corner |  | See screenshot |
| 1.20.6 | Transfer | A help dialog should pop op if user tap the question mark in the upper-right corner |  | See screenshot |
| 1.20.7 | Feedback | A help dialog should pop op if user tap the question mark in the upper-right corner |  | See screenshot |
| 1.20.8 | Location Services | A help dialog should pop op if user tap the question mark in the upper-right corner |  | See screenshot |
| 1.20.9 | Notification | A help dialog should pop op if user tap the question mark in the upper-right corner |  | See screenshot |
| 1.20.10 | Account Health | A help dialog should pop op if user tap the question mark in the upper-right corner |  | See screenshot |
| 1.20.11 | Set Goals | A help dialog should pop op if user tap the question mark in the upper-right corner |  | See screenshot |
| 1.20.12 | If no help message is given, then a message should tell user that there is no help information on this page | A help dialog should pop op if user tap the question mark in the upper-right corner |  | See screenshot |