|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test number | Description | Data Type | Expected Result | Pass/Fail |
| 1 | Checking that the login screen allows user to log in with their credentials. | Typical | System logs in using the user’s data. | Pass |
| 2 | Checking that the log in screen does not allow people to log in with any credentials. | Erroneous. (Incorrect Password) | Error message appears. (Your Username or Password is incorrect. Please try again.) | Pass |
| 3 | Checking that the program calculates ‘k’ correctly. | Typical.  (6.42^-1, 5.15^-1, 1, 1, 4.12^-4) | Answer  calculated using correct steps  and being the same as on a calculator (rounded to 3sigfig). | Pass |
| 4 | Checking that the program accepts correct answers for ‘k’ values. | Typical | Answer  rounded to 3 sig fig and entered in the correct format opens “correct answer” message box. | Pass |
| 5 | Checking that the program accepts correct answers for ‘k’ values. | Erroneous (any incorrect answer, sdfdgido, 9.25^-5). | Answer given compared to the correct answer, then “incorrect answer” message box opened. | Pass |
| 6 | That an account must have a unique username, cannot have any unfilled fields apart from middle name and that a target grade between A-U. | Typical  (Student,Jack,William,Montfort,salmon,JMontfort, 12EJP, A) | Student account allowed to be made, “new student created” message box opened. | Pass |
| 7 | Testing that accounts are saved when created. | Data entered in last test. | Correct student account details printed out. | Pass |
| 8 | Checking that only valid information can be input into the fields. | Erroneous  (Target grade correct as this is picked up, but the rest are not). | Student account not made, error message displayed. | Pass |
| 9 | Clicking the “Practise Questions” button opens the “Practise Questions” window. | Typical  (clicking the correct button) | Practise questions window opens. | Pass |
| 10 | That total population has to be bigger than the amount of heterozygous individuals when making a Hardy-Weinberg question. | Erroneous  (Larger homozygous recessive,300, than total population , 32) | Question is not allowed to be created, error message opens. | Pass |
| 11 | That total population has to be bigger than the amount of heterozygous individuals when making a Hardy-Weinberg question. | Typical (total pop 32, no of homozygous recessive 10) | Question allowed to be created, confirmation message box. | Pass |
| 12 | That questions are stored correctly in questions.pickle | Data from last test | Correct question details printed from pickle. | Pass |
| 13 | Testing that questions can be added to a QSet, that duplicate questions can’t be added and that QSets can be saved if they fit the correct criteria. | Typical(1 : Hardy-Weinberg, 2 : Rate Constant) | Selected fields move to the “New Set” box, questions cannot be moved to the “New Set” box if they are already in the “New Set” box. A message box opens saying that a question set has been . | Pass |
| 14 | Testing that a QSet is saved. | Typical(1 : Hardy-Weinberg, 2 : Rate Constant) | Correct QSet details printed out. | Pass |
| 15 | Test that a QSet must have a name to be created | No name entered. | Error message opens and QSet is not saved. | Pass |
| 16 | Test that a QSet must have questions in it to be created. | No questions put in “New Set” box | Error message opens and QSet is not saved. | Pass |

*lol*