|  |  |  |  |
| --- | --- | --- | --- |
| Test Case | Input | Expected Results | Coverage |
| Login with matching username and password | Correct Username and Password | The user logins successfully | Lines 1-17 |
| Login with non-matching username and password | Correct Username and Wrong Password  Correct Password and Wrong Username  Wrong Username and Password | The user can’t login normally. The program asks them to input again for another two attempts | Lines 1-10 |
| Login with correct username but wrong password for more than three times | Correct Username and Wrong Password  Correct Password and Wrong Username  Wrong Username and Password | The program shows the security question for the user to answer. | Lines 11-12 |
| Answer the security question with the correct answer | Correct Answer to the security question | The program sends you an email with your password and allows you to login | Lines 13-16 |
| Answer the security question with wrong answer | Wrong Answer to the security question | The program won’t send you password but lets you try again. | Lines 11-16 |

**Question 1**

Diagram

Description automatically generated

**Pseudo Code**

username = "abcd"

password = 1234

count = 3

var1 = input username

var2 = input password

while count is 3

if var1 & var2 both doesnt match username & password

count = count - 1

continue

if count deduct and equal to 0

secret question will be gives out to user (input)

if secret question is correct

login info is sent to user's email, end here

else

break

"Access is granted"

End

**Question 2**

|  |  |  |  |
| --- | --- | --- | --- |
| Test Case | Input | Expected Results | Coverage |
| Bank transfer between same bank providers with money greater than 10K baht. | Money > 10K baht, 2 Bank Accounts with the same provider | The fee calculated will be 1% of the money transferred | Lines 1-2 |
| Bank transfer between the same bank providers with money lesser than 10K baht | Money < 10K baht, 2 Bank Accounts with the same provider | The fee calculated will be zero. | Lines 1-4 |
| Bank transfer between two different bank providers with any amount of money | Money (Any value), Bank Accounts with different provider | The fee calculated will be 1% of the money transferred plus 50-baht flat fee. | Lines 1-6 |

Diagram

Description automatically generated

**Pseudo Code**

Starting Money transfer

IF same bank and amountTHB > THB10,000:

fee charge 1%

IF same bank and amountTHB < THB10,000:

fee charge is none

IF different bank:

fee charge 1% + THB50

**Question 3**

|  |  |  |  |
| --- | --- | --- | --- |
| Test Case | Input | Expected Results | Coverage |
| Preferred Customer pays for an order $1000 or more with a charge card | Preferred Customer with Charge Card, $1000 or more money | The discount is 5% of the price paid with 5% on top. | Lines 1-5 |
| Preferred Customer pays for an order with $1000 or more with no charge card. | Preferred Customer with no Charge Card, $1000 or more money | The discount is 5% of the price paid. | Lines 1-8 |
| Preferred Customer pays for an order with lesser than $1000. | Preferred Customer with Charge Card or No Charge Card, Lesser than $1000 money | The discount is $25 flat. | Lines 1-3 |
| Normal Customer pays for an order with any amount of money. | Normal Customer with any amount of money. | The discount is $5 flat. | Lines 1-9 |

Diagram

Description automatically generated

**Pseudo Code**

Enter Customer & payment from ordering

IF Customer is preferred:

receive $25 discount

IF Customer ordering > $1000:

receive 5% discount

IF Customer used charge card:

receive additional 5% discount

ELSE:

receive $5 discount

**Question 4**

|  |  |  |  |
| --- | --- | --- | --- |
| Test Case | Input | Expected Results | Coverage |
| The user chooses a number (n) and an array with no valid combination of elements that adds up to n | A number, an array with no valid combination of elements that adds up to n | There is no output from the program |  |
| The user chooses a number (n) and an array with exactly one pair of combination of elements that adds up to n | A number, an array with at least one valid combination of elements that adds up to n | The pair of numbers that adds up to n |  |
| The user chooses a number (n) and an array with at least more than one pair of combination of elements that adds up to n | A number, an array with at least more than one pair of combination of elements that adds up to n | Pairs of numbers that adds up to n. |  |
| The user chooses a number (n) and an array with an index count of 1 or less. | A number, an array with an index count of one or less. | There is no output from the program |  |

Diagram

Description automatically generated

**Pseudo Code**

Array = [1,2,3,4,5]

INPUT a number

while True:

IF element adds up to n:

print pair(s) of number that sums to n

break

ELSE:

pop elements out of list array

continue

**Question 5**

|  |  |  |  |
| --- | --- | --- | --- |
| Test Case | Input | Expected Results | Coverage |
| The user input two arrays with the same number of index count that is more than one. | Two arrays with the same number of index count that is more than one, Empty Array | An array with an alternating order of elements from both arrays |  |
| The user input two arrays with different number of index count that is more than one. | Two arrays with different number of index count that is more than one, Empty Array | An array with an alternating element from both arrays. The other elements are arranged after the pattern |  |
| The user input one array empty array and one array with a defined index count that is greater than zero. | One array with an index count of more than one. Two empty arrays | An array that is identical to the array inputted with an index count |  |
| The user input two empty arrays | Three empty arrays | Empty Array |  |

Diagram

Description automatically generated

**Pseudo Code**

5. Combine two list alternatively

List1: #numerical elements

List2: #alphabetical elements

List3: []

for x, y in zip(List1, List2):

List3 += [x, y]

print(List3)