You have a vending machine to test
Requirements:

1. Five different brands of drinks are available.
2. The customer has an option to pay with cash or credit card
3. To choose the drink customer will press the number from 1 to 5

Functional Testing:

1.Unit Testing:

1.1 Press every button → Verify they work and can be pressed without much effort.

1.2 By pressing the buttons, I visualize what is written on the screen, the steps I am going to take.

1.3 I monitor how clearly it is written on the screen with a large font, enough light.

1.4 Check the door where I have to take the drink, if it opens and if it fits my hand.

1.5 Verify product selected is out of stock (The system will display a message informing the user that the product is out of stock and to make another selection and the system will not have accepted any payment at this point.)

2. Integration Testing:

2.1 Press 1 button on the control panel → Verify 1 appeared on the display. Thus, I repeat with all the buttons in a row.

2.2 After displaying the number of my choice I follow the instructors to receive my drink, to see the connection between choice and pay command.

2.3 Pass the Visa credit card à Verify request of validation was sent to Visa server

2.4 I'm checking how the back function works in case I didn't press the desired number.

2.5 When handling the coins, I check how transparently the machine shows the inserted amount, if it is not enough, it displays on the screen how much is not enough, if there is a surplus, it reports and then calculates the change.

2.6 I make grammatical mistakes when I type the product number, for example, we have products from 1 to 5, and I press the same number twice, as a result I want to receive a display such as the information is ironic and to throw me back a step to try again.

3. System Testing:

3.1. Positive tests

3.1.1 Pay the exact amount of the product price using coins, choose the drink --> verify the product is delivered, no change returned

3.1.2 Pay with credit card chosen drink.

3.1.3 I pay in bigger coins to see how I get my change.

3.1.4 I check the machine when it is out of service so that it does not accept any sale and displays a message that it is not functional.

3.2. Negative tests

3.2.1 Insert an insufficient quantity of coins, choose the drink --> verify error is displayed.

3.2.2 I pay for a product with the card with insufficient balance.

3.2.3 I am trying to complete the steps to receive my product without paying.

4.Sanity Testing:

4.1. Step by step I order the product, pay and receive the drink. I do it once with the card payment method and once with coins.
4.2 In the coin payment method, I pay once with high value coins to get my change.

5. Acceptance Testing:

5.1 I invite different categories of people to test the machine, these categories include children, elderly, youth and others.
5.2 I invite the people who are going to do its maintenance to test this machine. These people must replenish the stock of drinks and extract the accumulated coins.

NON- Functional Testing:

6. Performance Testing:

6.1 Press button with my choice --> immediately need to appear on the screen number of my choice.

6.2 I perform all the steps to receive the drink, from one step to another I time the time so that it is equal everywhere and quickly.

6.2Swipe the visa master card --?> check the operation time, it should not exceed 5 seconds

7. Load Testing:

7.1 I place drink orders until I take them all out. Thus, first of all, I count the amount of bottles that fit in the space from where I have to remove them. Secondly, I check what is displayed on the screen when there are no more drinks in the machine.
7.2 After emptying the machine, I make another order to see if it will take money from me knowing that it is empty.

8. Stress Testing

8.1 I press buttons chaotically at small intervals.

8.2 I vibrate the machine so that I can get the drink without paying for it.

8.3 I pull the door of the machine to see if it opens.

8.4 I punch the button console.

8.5 I start a heater in the space where this machine will be, to see if it does not overheat and continues to work. And similar manipulation I do with machine too cool the space.

9. Security Testing:

9.1 When paying by card, I make sure that after paying, my card details will not be used for the next order.

9.2 I assume I'm playing the role of an attacker and I am simulating around the system to find security bugs (trying to get the drink with fake coins, trying to get the drink by pressing buttons insistently without paying etc.)

10. Recovery Testing:

10.1. When I make the payment, I disconnect it from the power and then reconnect to see if it memorized the last stage when I had already paid and to give me a drink.
10.2 When I make the order, I check if the pressed button corresponds to what I wanted.

11. Usability Testing:

11.1. I test from the point of view of an elderly person who is not very good at technique, and of a child. These persons can be potential buyers on cash --> how simple for them is to bring the drink. Also, the persons can be short --> how good is fit this machine for not tall persons.

11.2. When the drink falls into the space where you have to pick it up, you usually need to push a small handle with your hand, I check how easy it is to push that handle and if it won't squeeze the buyer's hand.

11.3 I check it superficially to see if it is safe for children, that it does not have any protruding cables or holes where children can put their fingers or other objects.

11.4 I check it superficially to make sure it doesn't have any annexes that people passing by can get in the way.

11.5 I check the voltage to which it will be connected so that it does not short circuit.

11.6 If it will be installed in a dark room, I check that it has enough lighting for people to see it.

12. Localization Testing:

12.1. Let's assume that this device is created for Canada, I make sure that the welcome message should be played in two languages: English and French.

12.2 The next step should allow the client to choose the language in which to complete the next steps.

12.3 I check if the local date and time correspond (given the fact that Canada has 6 time zones, the vending machine must be set accordingly).

12.4 One of the main factors is the country's currency, and I check that the device accepts only the Canadian dollar.