How would I test the bike by test levels

To test the bike I would start with unit tests. First, I would test separately the wheels, handlebars, brakes, gears, bike chains, rear sprockets, and pedals. After the Unit tests, the Integration test was applied: to check the interaction of the bicycle wheels and pedals; check the hand brakes and whether the gearbox is working; check whether the chain transmission works by combining the chain and the rear sprockets.

Bike testing levels						
Acceptance		Alpha		Beta		Gamma
System tests						
Bicycle torque		Handbrake and gearbox			Chain transmission	
Wheels	Pedals	Brakes	Helm	Bicycle gears	Chain	Rear sprockets

The next step would be System tests:

1. Usability testing - is it convenient to switch the gearbox, is the bicycle seat convenient, how convenient is it for the user to turn the pedals...

2. Regression testing - to determine whether a change in one part of the bicycle design affects its other parts. For example: change the location of the brakes and check if this does not affect the use of the bicycle.

Acceptance testing:
I would conduct tests to make sure that the processes work correctly, and to find bugs related to the convenience and simplicity of the bicycle for users.

Alpha
The product can already be shown to external users, but it is not finished, so the main testing is performed by the development organization.

Beta
The product can be openly shown to external users, it is stable enough. But there may still be problems, and feedback from real users is needed to identify them. I would give users a ride on the bike to find out if there are any problems.

Gamma
Pre-release testing of a product aimed at fixing minor defects found in beta testing.

How I would advertise my website, 1 test for each level.

I would start testing my website with Unit tests:

1. Test the ability to register a user (register with invalid data; enter numbers into string values; register with valid values...)
2. Test the login (login without entering any data; log in with an incorrect or non-existent phone number; log in without re-entering the password for confirmation...)

Next step Integration test:
1. Test whether it is possible to enter the personal account with previously registered data.
After the Integration test, I use System tests:
1. Security Testing - used to check system security. Checked whether other people are unable to enter the personal account and whether double verification is possible.

Acceptance testing:
I would conduct tests to make sure that the processes work correctly, and to find bugs related to the convenience and simplicity of the site for users.

Alpha
The product can already be shown to external users, but it is not finished, so the main testing is performed by the development organization.

Beta
The product can be openly shown to external users, it is stable enough. But there may still be problems, and feedback from real users is needed to identify them. I would choose a few users to use the site to find out if there are any problems with the site.

Gamma
Pre-release testing of a product aimed at fixing minor defects found in beta testing.

Functional types of testing

Unit test

1. Test Adding the product to favorites

2. Test the order registration

Integration test:

1. Make an order from "Selected"

System tests:

Usability Testing - test the ease of use of the site (instant scrolling; everything that can be done programmatically is done (the delivery city is substituted based on the user's location, but it is possible to edit); the logo is clickable and leads to the main page, but the main page does not reopen; there is a convenient search on the site; convenient buttons...)

Acceptance testing:

I would conduct tests to make sure that the processes work correctly, and to find bugs related to the convenience and simplicity of the program for users.

Alpha

The product can already be shown to external users, but it is not finished, so the main testing is performed by the development organization.

Beta

The product can be openly shown to external users, it is stable enough. But there may still be problems, and feedback from real users is needed to detect them. I would choose a few users to use the site, to find out if there are any problems with the site.

Gamma

Pre-release testing of a product aimed at fixing minor defects found in beta testing.

Non-functional types of testing

Performance

I used Load to check the behavior of the system during loading, for example: how the program will behave if n users access it. It would also load the program until the system shuts down (Stress). Finally, I checked whether the program is capable of recovery, whether it will recover well, and whether any data will not be lost when restoring the site after loading.

Usability

Would attract end users to use the site for one hour. After that, users have to pass a test with questions:

Have users explored this site?

Did you remember what was on the website?

Did they enjoy using the site?

Have users made mistakes while using the site? Which exactly?

Related to the system

I used Configuration to check how the site works on different systems. For example, I opened the site on Google Chrome, Firefox, Edge, Safari, and Opera and checked whether it works equally well on all these systems and whether there are no errors.

Related to localization

I would use Localization to check the correctness and quality of translation and adaptation to national characteristics. For example: checked whether the locale works on the site, namely, switched to the English locale and made sure that all the words on the site are translated into English, and that the time and date are correctly localized (2 p.m., not 14:00)

Test types are associated with changes

 Regression testing
I would check that there were no errors caused by changes in the program in the functional site. For example, if a feature was created for adding products to the cart, you need to make sure that the previous and long-written features are working.

Additional types of testing
 End-to-end testing
I would check the entire site from beginning to end, imitating the actions of the user, to make sure that the site works correctly, there are no bugs, the user can log in easily and safely, it is convenient to choose a product, all buttons work, there is a convenient search for products