



# Certified Jenkins Engineer

Testing and Notifications

# Testing

This is the process of checking the code to ensure that the code is working as designed, or that the output of the code is what is expected.

```
function add_5(a){  
    return a + 5  
}  
  
@Test  
function test_add_5(){  
    this = add_5(5)  
    assert.Equals(10, this(5), '5 + 5 must equal 10')  
}
```

# Types of tests

## Unit test

In this type of test individual components ( classes, methods, modules ) are tested to ensure that outputs are as expected.

```
some_data = access_database.get('username','address','phone_number')
```

test to ensure that the data contained in 'some\_data' is what is expected

```
@test {  
    Ensure phone_number is a phone number  
    Ensure address is an address  
    Ensure username is a username  
}
```

# Types of tests

## Smoke Test

More generalized than a unit test, this type of test checks the main functionality of the software to ensure that it is stable enough for further testing

Does it load?

Do the menus work?

Does it crash when the save  
button is clicked?



# Types of tests

## Verification / Functional test

Verification testing seeks to answer the question, did we satisfy the build requirements? Automated Verification testing is used to streamline this process

Functional testing checks a specific function of the software. This seeks to answer the questions “does this feature work?” or “can a user do this?”



# Types of tests

## Acceptance test

This is the handoff test of the software to the client. This is normally done by the client to ensure that the software meets their expectations.



# Notifications

Notifications are critical to an automated process, they give you active feedback to the status of processes within the project.

If a build fails or if you need to manually approve a deployment you can configure a notification to be sent.

Types of notifications include E-mail, SMS and several types of instant messaging that are configurable via plugins



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