**Verification and Validation**

Validation: Does the software meet the requirements.  
“Are we building the right product?”  
  
Verification: Does the software conform to the specifications  
“Are we building the product right?”

Eg  
Login  
Validate: That is a person  
Verify: They are who they say they are.

There are two types of Verification technique   
Static: The output is set  
Dynamic: The output changes based on input.

You will have a:  
Test Name: eg User authentication  
Test Input: eg username, password  
Test/Conditions: What we are testing, ie user exists, password correct  
Expected Output: eg Authenticate user, Continue to dashboard  
  
You will have every possible case that can happen, for each test name. At least the obvious ones, and those that make **sense**.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Test Name | Input | Conditions/Test | Expected Output |
| 1 | Add to cart | User clicks add item | Item exists, item in stock | The item gets added to shopping cart |
| 2 |  |  | Item exists, but item not in stock | Display error message “Out of stock” |
| 3 |  |  | Item exists, item in stock, but item cannot be delivered | Display Error Message “Item cannot be delivered” |
| 4 |  |  |  |  |

**Cost Estimation**

Software cost estimation si the approximation of costs required to produce and operate a software product.  
  
There are 3 types of costs:  
-Human Cost  
-Technical (Hardware + Software)  
-Other

20%  
40%  
40% testing