Verification and Validation

# Verification (a.k.a. Testing, QA, Quality Control)

**Product Quality** can be defined in several closely related ways:  
(1) Product matches its specification (key conditions in your Functional Specification).   
(2) Product has been created in a controlled, predictable environment and all the procedures have been properly observed.  
(3) Product is suitable for its intended purpose and satisfies customer expectations.

Define in the provided area – what conditions would make your product qualitative. (The definition can contain up to 3 text paragraphs or some 8 bullet points – should not exceed 1/3 of a page.

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# Testing Plan

Once you have defined what does it mean to have a qualitative product, you also define a practical way to check/verify, if these conditions are matched by your actual product.

Define in the provided area the steps used by an automated or human tester to check, if your product is fine. For some of you it could be Selenium tests, or other automated regression testing. For others it will be a manually doable usage scenario – what is the typical way (or ways) how you expect your product to be used.

A typical testcase has 3 parts:   
(1) **Precondition** (e.g. user is logged in; already opened your page in a browser).   
(2) **Action** (e.g. user clicks on a button or sends an application form to an email address).  
(3) **Expected result** (what should happen, if everything works fine).  
You may need a larger set of testcases. If they do not fit in this file (or they are automated tests written in some formal language) – add a link to a testing plan. If it is simple to test, you can write it directly in the provided space.  
Even non-IT products should have tests. For example, one can test the quality of a McDonalds meal or a human bank service.

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# Validation Plan

Validation is more complicated than a verification; it does not simply check, if the product matches the promised quality guidelines (e.g. a horse looks and behaves like a horse.)  
Validation elicits actionable information from the external actors – the **End Users** of your product (the roles in your Functional Specification), or your actual or prospective **Paying Customers**, or any **Other Stakeholders**.

For each group of your target audience you can have a different validation method. Try to plan (and fill in) at least two different validation methods – if one of them fails, then you can get some information by other means.

## **Validation Method: <<Title>>**

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| (1) **Short Description** – What information do we expect to gain from this validation. | <<Your text here>> |
| (2) The **Target Audience** of stakeholders. Which group will validate your product. |  |
| (3) The **Channel** and the **Type of Feedback.** Is the feedback mouse-clicks? Downloads? Interactions in social network? Interviews? Focus groups? Surveys filled in? Sales figures – money earned? |  |
| (4) The **Relation to the Goals**. Why is this feedback relevant for your product. |  |
| (5) **Notes**: anything that did not fit in the other fields. |  |

## **Validation Method: <<Title>>**

**<Insert one more table here>**