



## **Aufgabe 10**

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# Chapter 1

## Task 1

(a) In essence the process of Validation is asking yourself the question: "Am I building the right product?" where the process of Verification is asking yourself: "Am I building the product right?". Verification involves checking that the software conforms to its specification. The aim of validation is more general, it is to ensure that the software system meets the customer's expectations. [6]

(b) A test case is a set of actions performed on a system to determine if it satisfies software requirements and functions correctly.[7]

(c) An error is usually an human mistake that resides inside a software system, a defect is the imperfection in the software that happens when the human mistake is made, finally a failure is what a software incurs when trying to execute with a defect. [5]

(d) Solution:

1. The review is the process of examining the code of a Software also relating the code to its requirements and documentation; the structural testing or White Box testing is a process in which the the structure of often time just units in the software, it is like the process of review an inspection of the source code, but it doesn't have any relation to the documentation and to the requirements. [6][4]
2. Load testing is usually used, when testing a software, to find the threshold for the software to still work under a certain amount of load of work. Instead stress testing is used to examine how the software reacts to an excessive amount of load, so when the threshold is passed.[3]
3. Testing is the process of verifying and validating that a software or application is bug-free, meets the technical requirements as guided by its design and development, and meets the user requirements effectively and efficiently by handling all the exceptional and boundary. Debugging is the process of fixing a bug in the software. It can be defined as identifying, analysing, and removing errors.[2]

4. Function testing is the process of verifying the functionalities of the software, acceptance testing is the process whereby the system is tested using customer data to check that it meets the customer's real needs.[6]
5. Top-down testing is a type of incremental testing approach in which testing is done by integrating or joining two or more modules by moving down from top to bottom through control flow of architecture structure. Bottom-up is the inverse process: testing single modules and then going up putting together said modules.[1]

## **Chapter 2**

### **Task 2**

## **Chapter 3**

### **Task 3**

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