IT 414
Systems Quality Assurance

Test Analysis

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What is Test Analysis

- Test Analysis in software testing is a process of checking and analyzing the test artifacts in order to base the test conditions or test cases.

- The goal of test analysis is to gather requirements and define test objectives to establish the basis of test conditions.
- Hence, it is also called Test Basis.

The source from which you derive test information could be

SRS (Software Requirement Specification)	BRS (Business Requirement Specification)	Functional Design Documents

What is Test Analysis

- Testers can create Test Conditions by looking into the Application Under Test or use their experience. But mostly, test cases are derived from test artifacts.

Using Case Study to understand test analysis

- Consider a scenario, where the client sends the following *"Add search functionality to an eCommerce Store"*
- Even though the application is yet to be developed, try and develop a few test cases for this requirement.

- A few test cases among the many you could have thought of are listed below

1.Check the search results when no keyword is entered

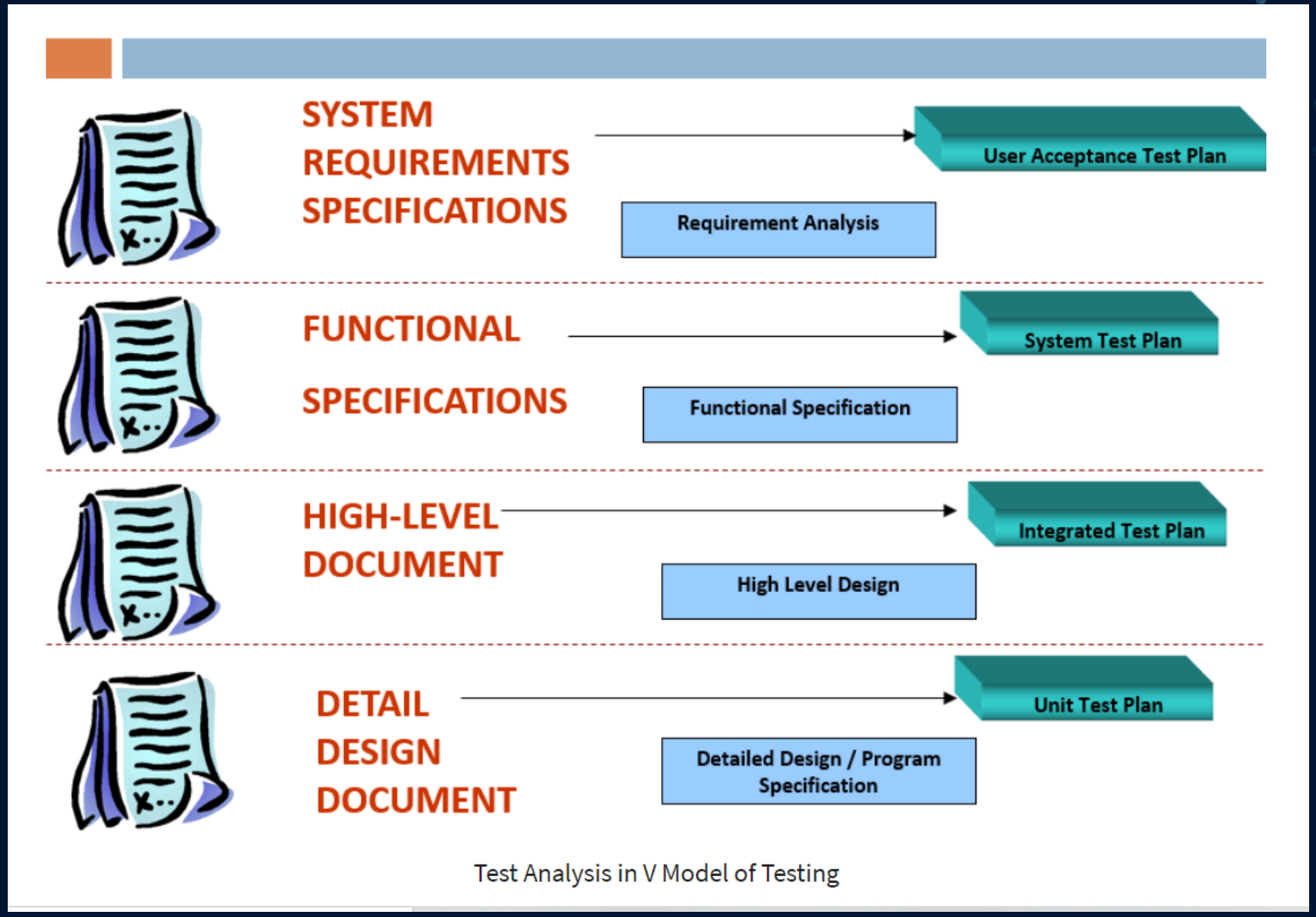
2. Check the search results when no corresponding product is available for the keyword searched

3. Check the search results when a number of corresponding products are available for the keyword searched

Using Case Study to understand test analysis

- Here, you look into Test Basis (requirement send by the client), analyze it, and convert it into Test Conditions.
- This is what happens during the different phases of V- Model.
- Test Plan/Cases are created using the corresponding documents available at different phases.

Test Analysis in V Model of Testing



Test Analysis in V Model of Testing

System Requirements Specification

Requirement Analysis

- This phase contains detailed communication with the customer to understand their requirements and expectations.
- This stage is known as Requirement Gathering.

No	Requirement	Use Case
1	To locate user's current location	Current Location
2	To display user's current location information	Display Current Location
3	To display error when couldn't locate location	Error Displaying Locations
4	To provide a search function for user to search for direction to another location	Search Direction
5	To display user's desired location direction	Display Direction
6	To provide user the floor plans of the building	Floor Layout
7	To provide the list of floor layout for user to select	Select Floor
8	To display the selected floor layout by the user	Display Floor Layout
9	To provide user all the stores information in the building	Store List
10	To provide the list of store categories for user to select	Select Category
11	To display the list of stores under the selected	Select Store
12	To display the selected store information	Display Store Information
13	To display the first interface of	Home

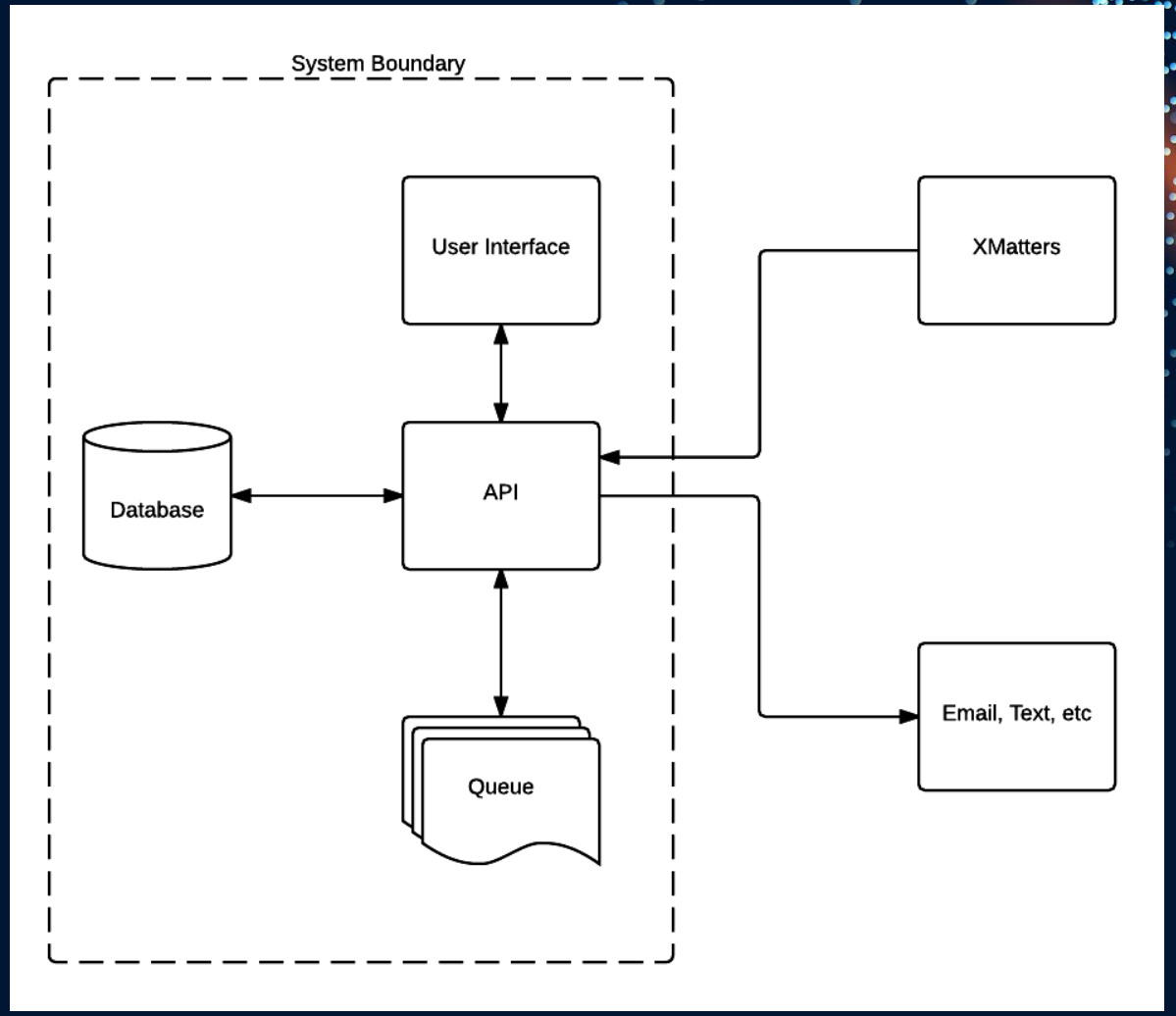
Functional Specification

- Based on the output from the Requirements Analysis, the system is designed at the functional level.
- This includes the definition of functions, user interface elements, including dialogs and menus, workflows and data structures.

1. Purpose
2. Project Description
3. Project Specifications
   - 3.1 General Platform Specifications
     - A brief section description.
     - 3.1.1 Specification 1
     - 3.1.2 Specification 2
     - 3.1.3 Etc.
   - 3.2 Development Specifications
     - A brief section description.
     - 3.2.1 Specification 1
     - 3.2.2 Specification 2
     - 3.2.3 Etc.
   - 3.3 Internationalization Specifications
     - A brief section description.
     - 3.3.1 Specification 1
     - 3.3.2 Specification 2
     - 3.3.3 Etc.
   - 3.4 Initialization/Startup Specifications
     - A brief section description.
     - 3.4.1 Specification 1
     - 3.4.2 Specification 2
     - 3.4.3 Etc.
   - 3.5 General Functional Specifications
     - A brief section description.
     - 3.5.1 Specification 1
     - 3.5.2 Specification 2
     - 3.5.3 Etc.
   - 3.6 Closedown Specifications
     - A brief section description.
     - 3.6.1 Specification 1
     - 3.6.2 Specification 2
     - 3.6.3 Etc.
   - 3.7 Error/Exception Handling Specifications
     - A brief section description.
     - 3.7.1 Specification 1
     - 3.7.2 Specification 2
     - 3.7.3 Etc.

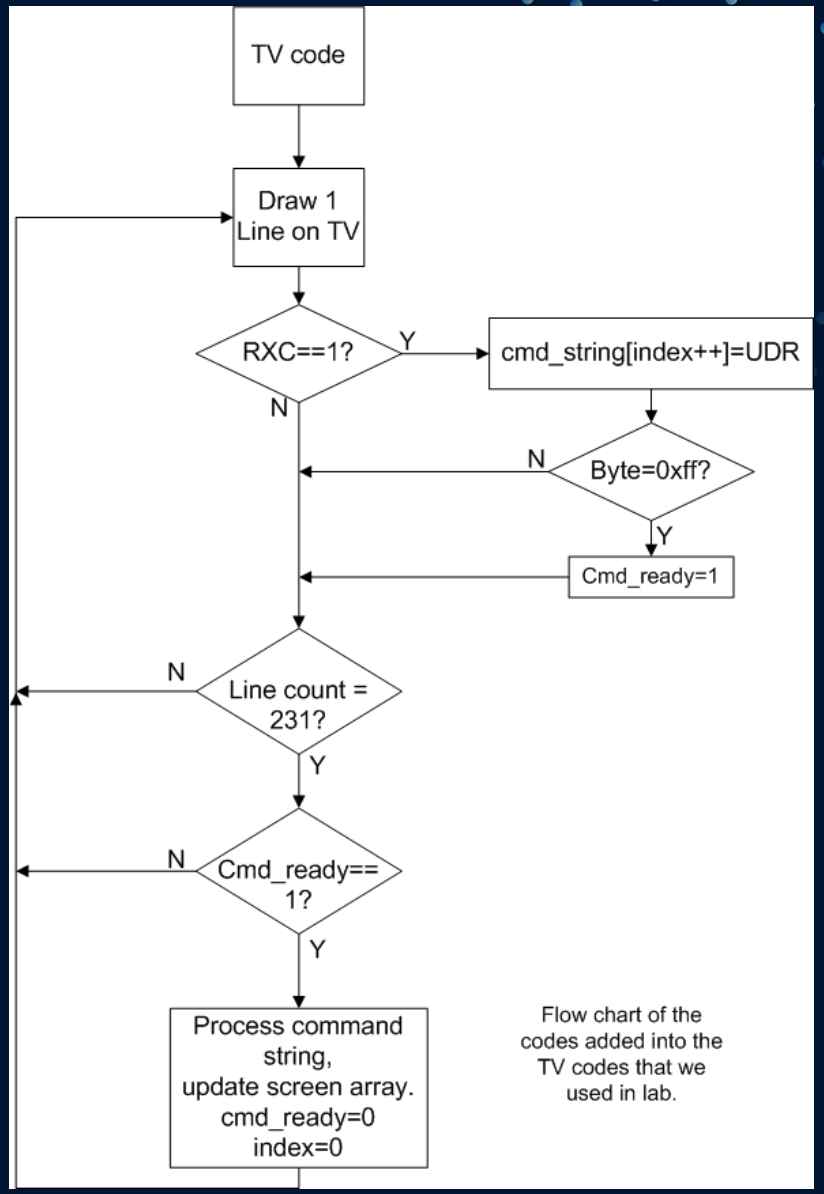
High Level Documents

- Architectural specifications are understood and designed in this phase.
- Usually more than one technical approach is proposed and based on the technical and financial feasibility the final decision is taken.
- The system design is broken down further into modules taking up different functionality.
- This is also referred to as High Level Design (HLD).



Detail Design Documents

- In this phase, the detailed internal design for all the system modules is specified, referred to as Low Level Design (LLD).
- It is important that the design is compatible with the other modules in the system architecture and the other external systems.



QUESTIONS?