

CSE 566 Assignment 1- Outsourcing Testing of a New Product

Scenario: A software development company (Let us assume company name is ABC), is launching a new mobile app (Let us assume the app name is DEF). Due to resource constraints and the need for specialized expertise, ABC decided to outsource the app's testing to XYZ Testing Solutions, a renowned testing provider.

a. Value Stream Mapping (VSM) with Lean Waste

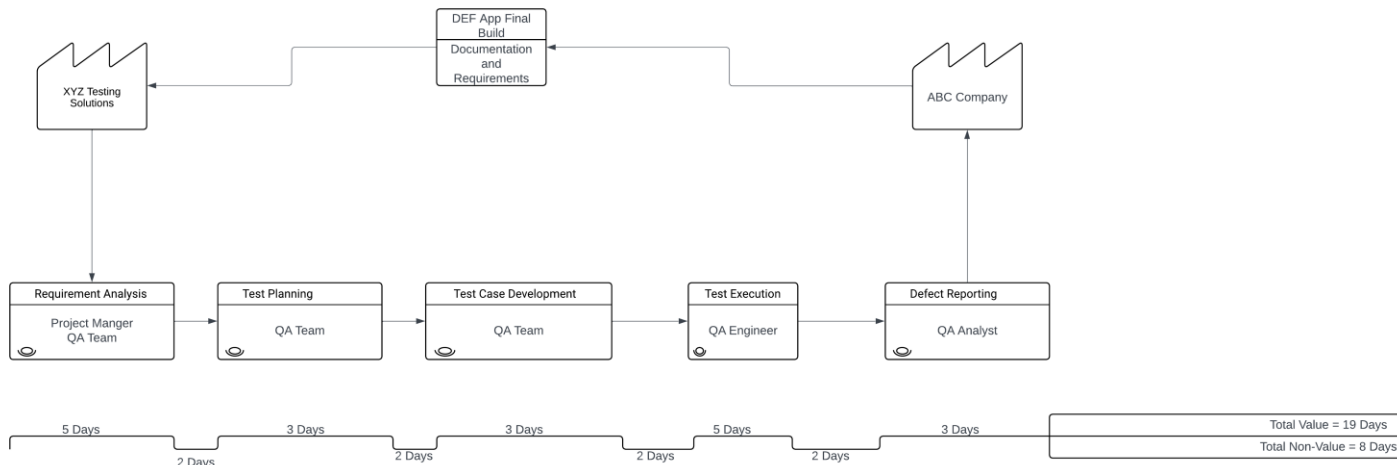


Figure 1.VSM with Lean Waste generated Using Lucidchart

Processes Connected to Outsourcing Testing:

1. **Requirement Analysis:** The process of gathering and documenting requirements for the new app.
2. **Test Planning:** Planning the testing process, including identifying test cases and scenarios.
3. **Test Case Development:** Creating detailed test cases based on the requirements.
4. **Test Execution:** Executing the test cases and scenarios to validate the product functionality.

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5. **Defect Reporting:** Documenting and reporting any defects or issues encountered during testing.

Lean Wastes Introduced:

1. **Overproduction:** Creating more test cases or executing more tests than necessary, leading to wasted resources.
2. **Waiting:** Delays in the testing process due to waiting for feedback or resources.
3. **Defects:** Defects discovered late in the testing process, requiring rework, and impacting product delivery timelines.

b. Updated Value Stream Mapping (VSM) after Eliminating Lean Waste

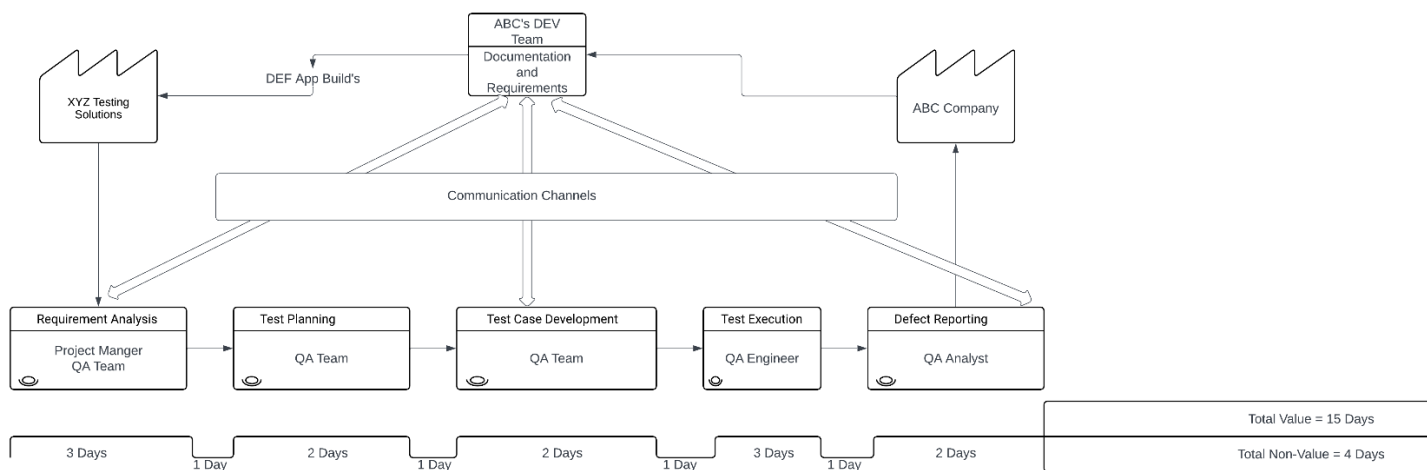


Figure 2. Updated VSM Using Lucidchart

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To eliminate the identified wastes, the following strategies can be implemented:

1. Overproduction:

- Streamlining the test case development process by focusing on critical and high-impact scenarios.
- Prioritizing test cases based on risk assessment and business priorities.
- This can be achieved through effective communication between ABC's Dev team and outsourced testing team during the **Requirement Analysis** phase.

2. Waiting:

- Improving communication and collaboration between the in-house development team and the outsourced testing team.
- Establish clear channels for feedback and provide timely access to required resources.
- This can be achieved through effective communication between ABC's Dev team and outsourced testing team by utilizing communication channels during the critical phases such as **Requirement Analysis, Test Case Development, Defect Reporting**.

3. Defects:

- Implementing shift-left testing practices by involving testing activities earlier in the development lifecycle.
- Conducting thorough reviews and inspections of requirements and designs to identify and address potential defects upfront.

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References:

1. <https://www.lucidchart.com/blog/how-to-create-a-value-stream-map>
2. <https://www.harness.io/blog/value-stream-mapping-guide>
3. https://www.youtube.com/watch?v=ITobwlsGm_g&ab_channel=EuroLEAN%2B
4. https://www.youtube.com/watch?v=0q7Hh2a4iD8&ab_channel=iZenBridgeConsultancyPvtLtd
5. <https://youtu.be/7wD7R6x3Pv4?si=T53QeI9ymTHCWs5B>