Software Project Management - Case Study - 1

17PW24 - Niteshkumar S

Case Study - 1

Prototype:

Prototyping Model is a software development model in which a prototype is built, tested, and reworked until an acceptable prototype is achieved. It also creates a base to produce the final system or software. It works best in scenarios where the project's requirements are not known in detail. It is an iterative, trial and error method which takes place between developer and client.

Types of Prototypes:

1. Rapid Throwaway prototypes
2. Evolutionary prototype
3. Incremental prototype
4. Extreme prototype

Rapid Throwaway Prototype

Rapid throwaway is based on the preliminary requirement. It is quickly developed to show how the requirement will look visually. The customer's feedback helps drive changes to the requirement, and the prototype is again created until the requirement is baselined.

In this method, a developed prototype will be discarded and will not be a part of the ultimately accepted prototype. This technique is useful for exploring ideas and getting instant feedback for customer requirements.

Evolutionary Prototyping

Here, the prototype developed is incrementally refined based on customer's feedback until it is finally accepted. It helps you to save time as well as effort. That's because developing a prototype from scratch for every interaction of the process can sometimes be very frustrating.

This model is helpful for a project which uses a new technology that is not well understood. It is also used for a complex project where every functionality must be checked once. It is helpful when the requirement is not stable or not understood clearly at the initial stage.

Incremental Prototyping

In incremental Prototyping, the final product is decimated into different small prototypes and developed individually. Eventually, the different prototypes are merged into a single product. This method is helpful to reduce the feedback time between the user and the application development team.

Extreme Prototyping:

Extreme prototyping method is mostly used for web development. It consists of three sequential phases.

1. Basic prototype with all the existing pages is present in the HTML format.
2. You can simulate a data process using a prototype services layer.
3. The services are implemented and integrated into the final prototype.

Suitable Prototype for "Student Information System"

For our case study we can proceed with the "Extreme Prototype" because, It will be easy for the students to access the application when provided as a proper web application. As mentioned in the definition we can split up the project into three phases,

- We create a basic UI (User Interface) with all details properly presented for the application.
- Accordingly we can create the necessary functionalities required from the back end, which would simulate the workflow of the application.
- All these functionalities can be integrated along with the feedback provided from the previous two phases into our final prototype.
- In this way it'll be cost effective since we include the feedback before proceeding with the final prototype, also we can implement the future feedback and roll out updates seamlessly with the help of continuous integration setup.

Case Study - 2 ("Customer Survey Questionnaire")

Question 1:

How well does our product meet your needs?
- Bad
- Average
- Good

Question 2:

Which of the following words would you use to describe our product?
- Buggy
- Fine, but there are some issues
- Great

Question 3:

How would you rate the value for money of the product?
- Bad
- Average
- Good

Question 4:

If you could change just one thing about our product, what would it be?

_____

Question 5:

How much effort did you personally have to put forth to handle your request?
- A lot of effort
- An usual amount of effort
- A small amount of effort

Question 6:

How responsive have we been to your questions or concerns about our products?
- Very Responsive
- Responsive
- Not Very Responsive

Question 7:

What problem would you like to solve with our product?

_____

Question 8:

How easy is it to navigate our website?
- Extremely Easy
- Easy
- Somewhat Easy
- Not So Easy
- Not Easy at All

Question 9:

Were you able to find the information you were looking for on our website?
- Yes
- No

Question 10:

Which 3 features are the most valuable to you?
- Custom responses
- Custom Integrations
- Design
- Great source code
- Easy Navigation

Question 11:

To what extent do you agree with the following statement: The company made it easy for me to handle my issue.
- Disagree
- Neutral
- Agree

Question 12:

- Compared to our competitors, our product quality is …
- Better
- The Same
- Worse

Question 13:

On a scale from 0 to 10, how likely are you to recommend our company to a friend or colleague?

_____

Question 14:

How likely are you to buy again from us?
- Not Likely
- Likely
- Very Likely

Question 15:

What else would you like us to know?

_____