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Aim : To identify a suitable life cycle model for your case study and justify your choice.

Abstract :-

EasyPay, a robust and user-friendly mobile application, emerges as a versatile digital financial platform, designed to streamline and enhance the everyday financial experiences of its users. With a commitment to simplicity and efficiency, EasyPay addresses the evolving needs of a dynamic user base, providing a comprehensive suite of features that redefine digital transactions.

The app's primary objective is to offer a seamless and secure platform for a wide array of financial activities, including mobile recharges, utility bill payment, and quick peer-to-peer transactions.

Features :-

## 1. Bill Payment :-

It facilitates settlement of utility bills including water, electricity, gas. Users can effectively manage & pay bills within the app.

## 2. Mobile Recharges :-

It enables users to choose their preferred plan, check balance & receive instant confirmation.

3. VPI payment & Inst

Integration with VPI allows peer-to-peer transaction & quick bank transfer. Users can link bank account easily.

4. Ticket Booking :-

Users can reserve seats for movies, flights, trains, buses & events enjoying the convenience of a consolidated platform for all their travel & entertainment needs.

5. Insurance &

It allows users to explore purchase & manage various insurance policies.

6. Loan services &

It offers personalized loan services & other financial products directly through the app.

7. Gold purchase &

It has a gold investment feature. Users can buy, sell & mark digital gold within the app.

Three suitable Models :-

1. Waterfall Model :-

communication

project initiation

requirement

gathering

Planning → Modelling

estimating

analysis

construction

scheduling

design

code

Deployment

training

test

delivery

### WATERFALL MODEL

The waterfall model is a sequential software development approach with clearly defined phases but limited flexibility for changing requirements. It is useful in situations where the project requirements are well defined & project goals are clear. It is often used for large-scale projects with long timelines.

CONS :-

1. Lack of adaptation to changing requirements :-

The waterfall model is linear and requires clearly defined and finalized requirements upfront. However, EasyPay operates in a dynamic environment where user needs and market trends are constantly evolving.

2. Limited user feedback :-

The waterfall model provides minimal opportunities for user feedback during development. This could lead to final product that doesn't fully meet user needs.

3. High risk of late stage issues :-

Since changes are difficult in the model, errors are overlooked at later stages. It is a significant risk for EasyPay - which involves complex functionalities.

Thus, the Waterfall model is not suitable for app. EasyPay

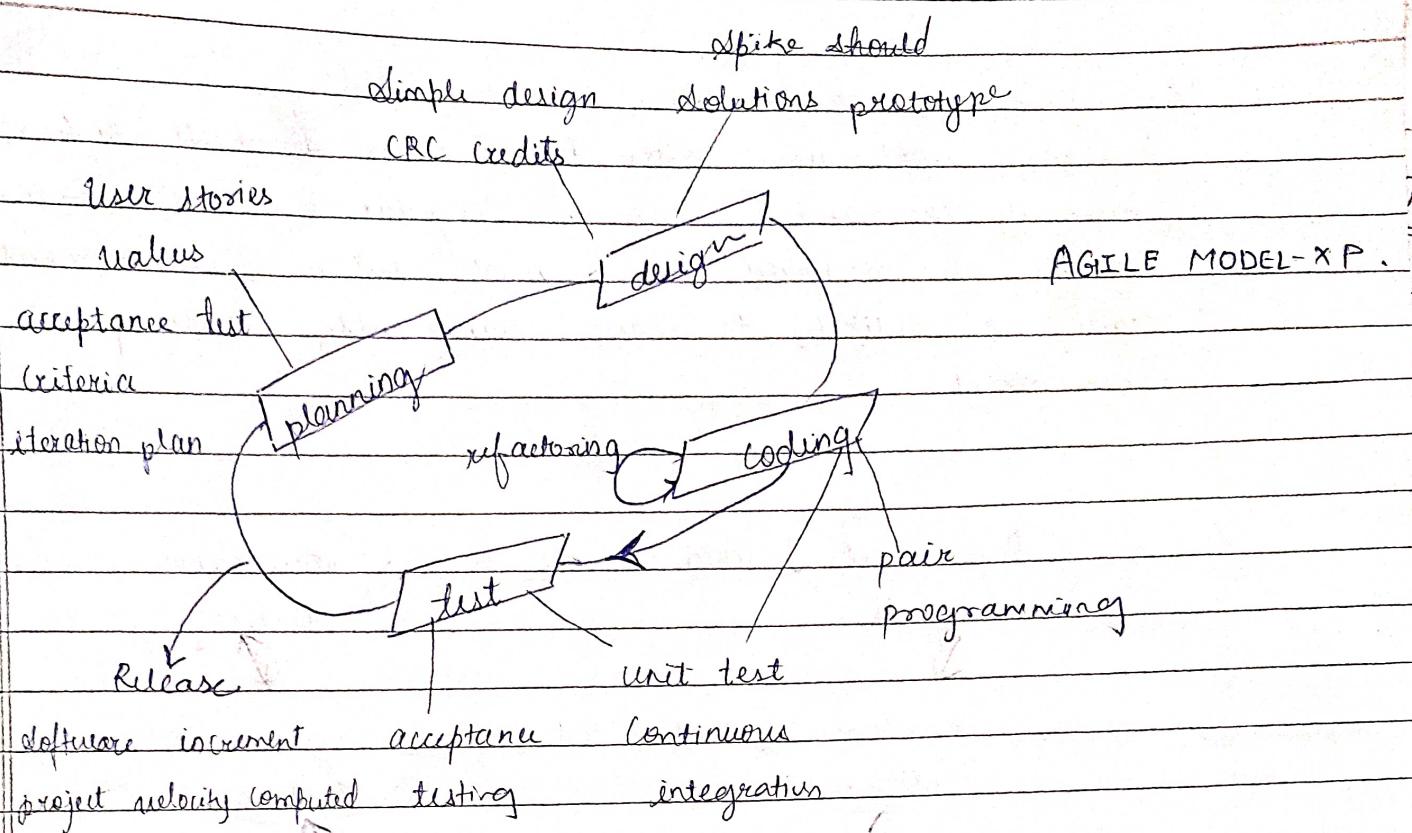
## 2. Agile Model :-

It is an iterative and incremental software development approach that focuses on flexibility, adaptability & continuous delivery of working software. It is used when frequent changes are required and when the project is of small size.

### CONS :-

1. Lack of up-front planning : Agile prioritizes flexibility and adaptation, which can sometimes lead to perception of lacking thorough planning.
2. Potential for scope creep : The emphasis on continuous iteration can unintentionally lead to scope creep.
3. It can be complex for large projects.
4. It can have potential integration issues. Integrating with external systems can be more difficult in a fast-paced iterative Agile approach.

Thus, Agile model is not a great choice for our app.



### 3] V-MODEL :-

It is a verification & validation model combines the waterfall model's structure with early & ongoing testing through development.

→ Why we can use this V-Model ?

1. Reduced Risk :

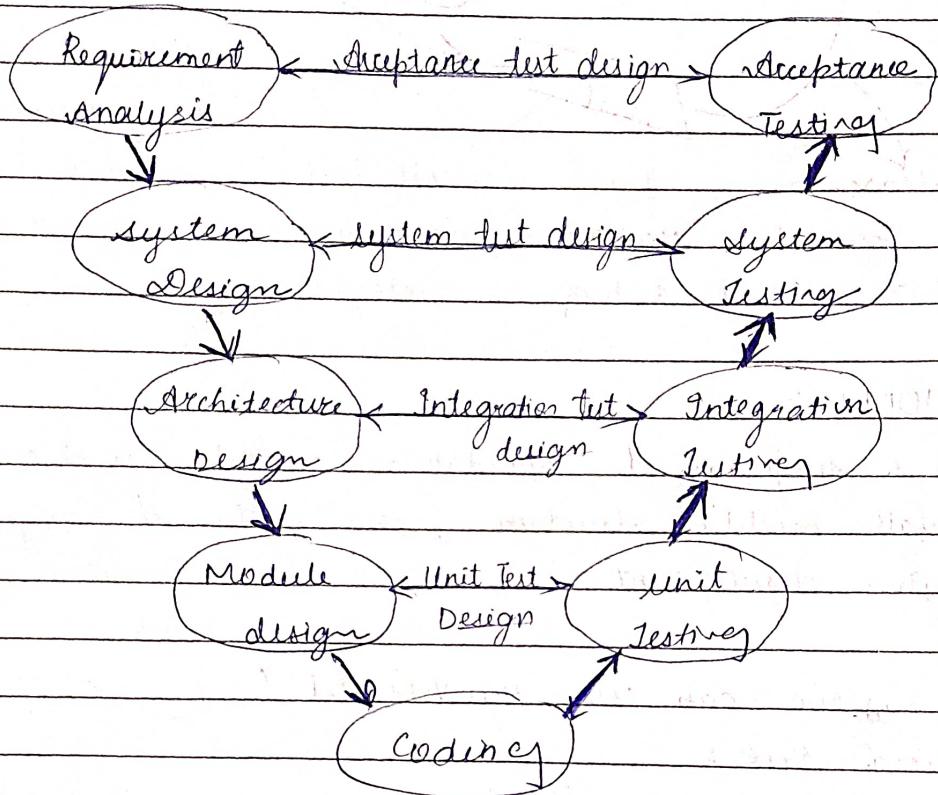
Financial applications handle sensitive user data and transactions. The v-model's emphasis on early verification through testing helps identify and address potential security vulnerabilities or errors early in the development process, leading to more secure & reliable product.

2. Regulatory Compliance :

Financial institutions must adhere to strict regulations. The v-model's structured approach & documentation focus can ensure the development process adheres to compliance requirements.

### 3. well-defined requirements :

Financial applications often have clear & well-defined functional requirements due to regulations & the need for accuracy. The V-model works well when requirements are stable & unlikely to change significantly during development.



### Conclusion :-

While Agile offers flexibility & waterfall provides structure, the V-model emerges as the strongest choice for financial applications. Its emphasis on early verification through testing throughout development, alongside a structured approach, minimizes security risks and ensures regulatory compliance - crucial aspects for financial apps. This focus on secure development, along with a clear roadmap, makes the V-model the most suitable methodology for building trustworthy financial applications.