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Agile Assignment - 03

Q.1

A. The process & roles of extreme programming are :->

The XP framework normally involves 5 phases or stages of the development process that iterate continuously.

a) Planning

-> In this first stage, the customer meets the dev. team & presents the requirements in the form of user stories. To come to result, the team then estimates the stories & create a release plan. If one or more stories cant be estimated, Spikes can be introduced which means that further research is needed.

b) Designing

-> It is a part of the planning process but can be set apart to emphasize its importance. Its related to one of the main XP values. A good design brings logic and structure to the system & allows team to avoid unneccessary complexity.

c) Coding

-> It is the phase during which the actual code is created by implementing specific XP practices, such as, coding standards, pair programming, etc

d) Testing

-> It is the core of extreme programming. It is the regular activity that involves both unit tests & acceptance tests.

e) Listening

-> This is all about constant communication & feedback. The customers and project managers are involved to describe the business logic & value that is expected.

• Values of extreme programming ->

a) Communication -> Everyone on a team works together jointly at every stage of the project.

b) Simplicity -> Developers strive to write simple code bringing more value to a product as it saves them time & effort.

c) Feedback -> Team members deliver software frequently & then get feedback about it & improve a product according to the new requirements.

d) Respect -> Every person assigned to a project contributes to a common goal.

e) Courage -> Programmers objectively evaluate their own results without making excuses & are always ready to respond to changes.

- Principles of extreme programming →

a) Rapid feedback → Team members understand the given feedback & react on it accordingly.

b) Assumed Simplicity → Developers need to focus on the solution which is important at that moment & follow simple implementation.

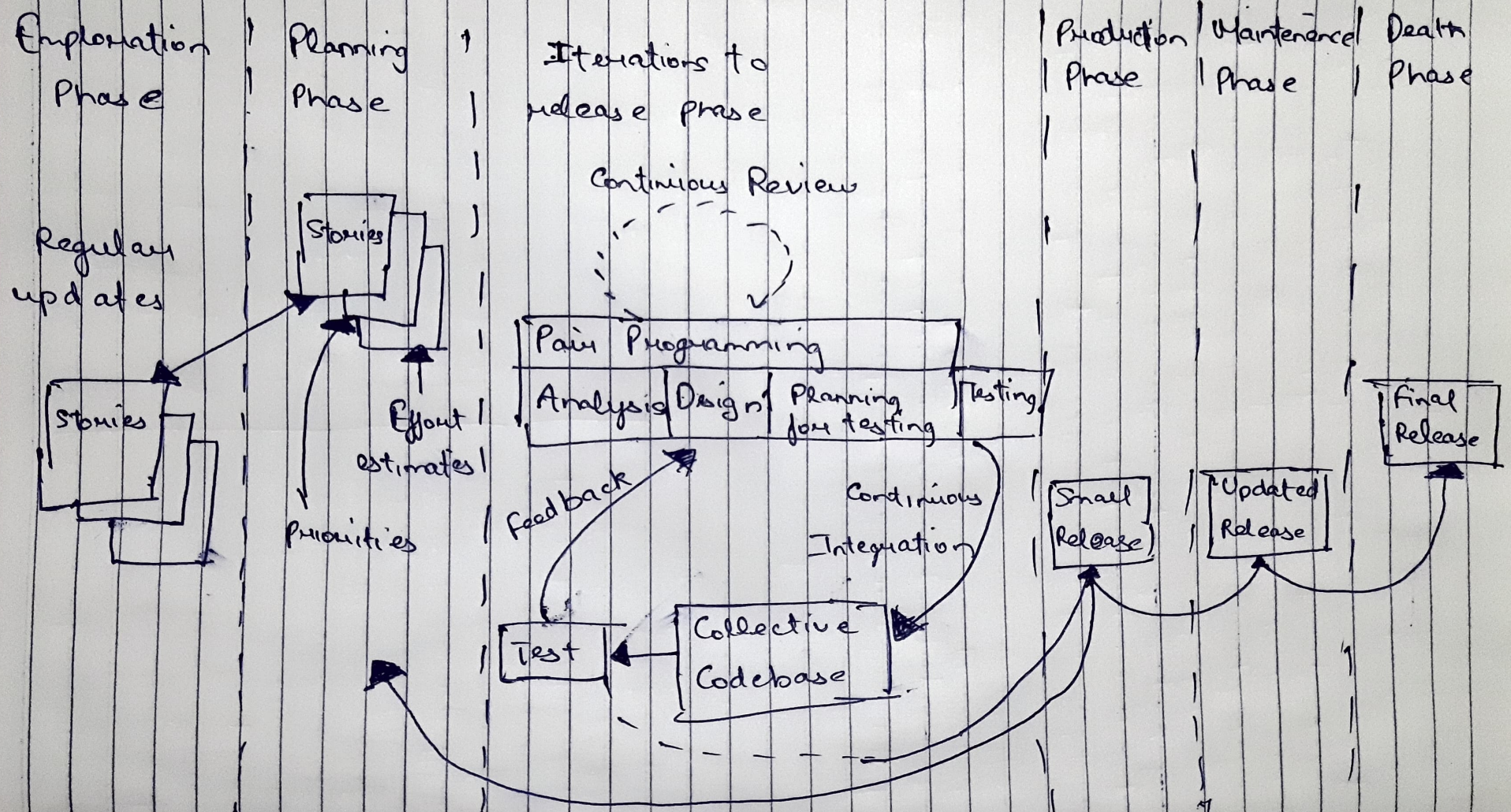
c) Incremental changes → Small changes made to a product step by step, work better than big ones made at once.

d) Embracing changes → If a client thinks a product needs to be changed, programmers should support & act upon this decision & plan how to implement new requirements.

e) Quality work → A team that works will make a valuable product & will be proud about it.

Q.2

Life cycle of XP



Q.3

A. Extreme programming practices are :-

a) The planning game
b) Small releases
c) Metaphor
d) Simple design
e) Testing
f) Refactoring
g) Pair programming
h) Collective ownership
i) Continuous integration
j) 40-hour week
k) On-site customer
l) Coding - standard -

Q.4

A.

Scrum	Extreme Programming
• In scrum framework, team works in iterations called sprint, which are 1-2 month long.	• In extreme programming, the team works for 1-2 weeks only.
• Scrum model do not allow changes in their timeline of their guidelines.	• Extreme programming allow changes to their set timelines.
• Scrum ~~eph~~ emphasises on self-organisation	• Extreme programming emphasises strongly on engineering practices.

• In Scrum framework team determines the sequence in which the product will be developed.	• In extreme programming team has to follow a strict priority order as per predefined rules.
• Scrum framework is not fully described. If one wants to adopt it then they need to fill the framework with their own framework method like, XP, OSDR, etc.	• Extreme programming can be directly applied to a team. It is also known for its ready to apply features.

Q.5

A.

1) Pair programming -> It is an agile software development practice in which, two programmers team up at one workstation to maximise efficiency.

2) System metaphor -> It is a practice of extreme programming which is used by the XP developers to replace the standard project architecture used in traditional software development methodologies. System metaphor is one of the core practices of the software development process, known as extreme programming. The metaphor just helps everyone in the project, understand the basic elements & their relationships.

3) Test driven development → It is a software development practice that focuses on creating unit test cases before developing the actual code. It is an iterative approach that combines programming, the creating of unit tests & refactoring.

4) On-site customer → It is a customer of whom which the generator is the supplier of electricity pursuant to a market supply agreement & which is located on the same private network as the generator.