Extreme Programming

Extreme Programming (XP) is one of the best known agile process. It is suggested by Kent Beck in 2000.

XP Values

Beck defined the set of five values that serve as a basis for the work performed in XP. These values are -

1. **Communication :** The effective communication must be established between software developers and stakeholders in order to convey the important concepts and to get the important feedback.

2. **Simplicity :** XP focuses on the current needs instead of futures needs to incorporate in the design. Hence the XP believes that the Software design should be simple.

3. **Feedback :** The feedback for the software product can be obtained from the developers of the software, customers, and other software team members.

4. **Courage :** The strict adherence to certain XP practices require courage. The agile XP team must be disciplined to design the system today, recognize the future requirements and make the changes dramatically as per the demand.

5. **Respect :** By following the above states XP values the agile team can win the respect of stakeholders.

Process

- The extreme programming process is explained as follows -
- Customer specifies and priorities the system requirements. Customer becomes one of the important members of development team. The developer and customer together prepare a **story-card** in which customer needs are mentioned.
- The developer team then aims to implement the scenarios in the story-card.
- After developing the story-card the development team breaks down the total work in **small tasks**. The efforts and the estimated resources required for these tasks are estimated.
- The customer priorities the stories for implementation. If the requirement changes then sometimes unimplemented stories have to be discarded. Then release the complete software in **small** and frequent **releases**.
- For accommodating new changes, **new story-card** must be developed.
- Evaluate, the system along with the customer.
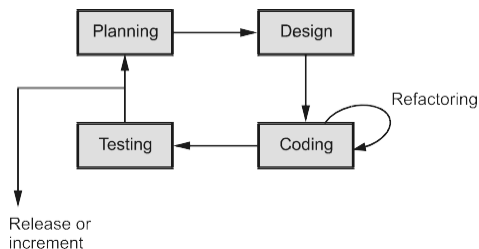
XP process

- The industrial XP (IXP) can be defined as the organic evolution of XP. It is customer centric. It has expanded role for customers and advanced technical practices.

Various new practices that are appended to XP to create IXP are as follows –

1. **Readiness Assessment :** In this assessment, following issues are assessed -

   i. Proper environment must be available to support XP.

   ii. Team should contain appropriate and skilled stakeholder

   iii. The organization should support quality programs and continuous improvement.

   iv. The organizational culture should support new values of agile team.

2. **Project Community :** Skilled and efficient people must be chosen as the agile team members for the success of the project. The team is referred as the **community** when extreme programming approach is considered. The project **community** consists of **technologies**, **customers**, and **other stakeholders** who play the vital role for the success of the project. The **role** of the community members must be **explicitly defined**.

3. **Project Chartering :** Project chartering means **assessing** the justification for the project as a business application. That means, the IXP team assess whether the project satisfies the goals and objectives of the organization.

4. **Test Driven management :** For assessing the state of the project and its progress the industrial XP needs some **measurable criteria**. In test driven management the project is tested with the help of these measurable criteria.

5. **Retrospectives :** After delivering the software increment, the **specialized review** is conducted which is called as **retrospective**. The intention of retrospectives is to improve the industrial XP process.

6. **Continuous learning :** The team members are inspired and encouraged to learnnew methods and techniques that can **improve the quality** of the product.