

SE 216 – SOFTWARE PROJECT MANAGEMENT
SOFTWARE PROCESS MODEL DOCUMENT

PROJECT NAME: HOME AGAIN

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#	NECESSARY NEEDS FROM THE ORGANIZATIONAL PROCESS
1	Rapid and frequent feedbacks from customers are needed.
2	Easy to use software tools are needed to make team work easier.
3	Story cards written by customers/users are needed to specify requirements.
4	Pair programming groups are needed to check each other's work.
5	Collective ownership is needed so that all developers can work in every step of the software processes and anyone can contribute every area.
6	Refactoring is needed to maintain simplicity.
7	Automated unit test framework is needed to write tests for a new functionality.
8	Incremental planning is needed based on new story cards.
9	A task is need to be integrated into the whole system as soon as it is completed.
#	UNNECESSARY NEEDS FROM THE ORGANIZATIONAL PROCESS
1	No need for excessive design and documentation at the end of each software process.
2	No need for a large team consisting of many members.
3	No need to finish one process to start another process.
4	No need to plan all stages in advance.
5	No need for long working hours.
6	No need to go back to previous process to add new changes.
7	No need for so many details on user stories.

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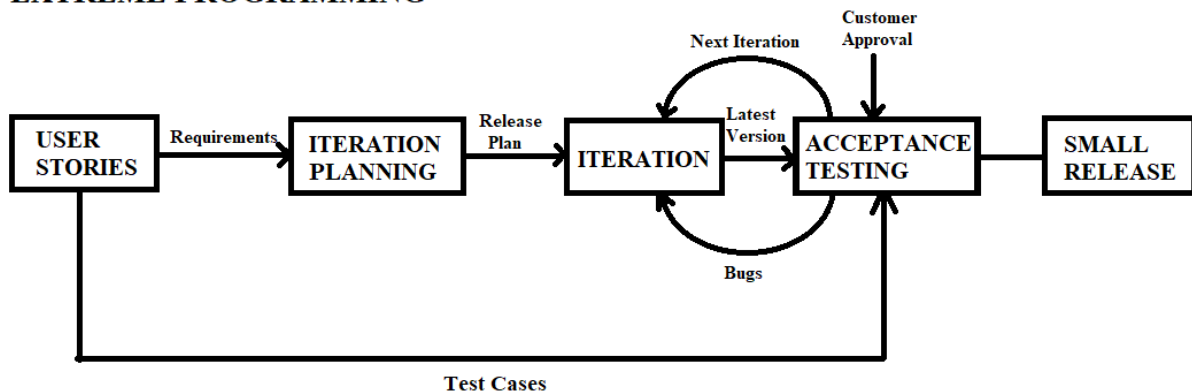
SOFTWARE PROCESS NAME: EXTREME PROGRAMMING (XP)

SOFTWARE PROCESS DESCRIPTION:

Extreme programming (XP) is one of the most used agile development techniques. It focuses on the simplest version of the product that can work. Refactoring is important to maintain the simplicity and improve the understandability of the software. The planning is incremental and iterations occur within processes. XP is an extreme approach to iterative development. For example, new versions may be built several times a day and built is successful only if tests are successful. Therefore, test-first development is a must. Additionally, full-time customer involvement and feedback is necessary in XP. User requirements are written on user story cards. These story cards should include role of the user, goal and reason. Development team breaks the story cards into tasks to be implemented. Pair programming and collective ownership are also principles of this method. The team is small and it consists of 2-10 people. They work in pairs and every member work on all ares of the system. All of the team members are responsible for all of the codes. It is a good approach for development of small releases.

SOFTWARE PROCESS MODEL:

EXTREME PROGRAMMING



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REASONS TO CHOOSE THIS MODEL:

- Our team consists of four members and XP approach needs a small team.
- It is suitable for small applications like ours.
- It saves time because there is no excessive documentation.
- We don't need to finish one process to start another process.
- Its cost is much less than other incremental development models.
- Its speed to change is high.
- The time to market is short.
- Refactoring is inexpensive.
- Because of the constant customer involvement, it is more possible for user to be satisfied with the result product.
- Incremental development reduces the risk of marketing.
- All members will have equal responsibility of all the codes.
- Refactoring improves the understandability of the codes.
- Simple design that works is enough.
- It provides minimum useful set of functionalities.
- The probability of code failure is less because of test-first development.
- XP avoids long working hours because it may cause inefficient codes and unproductivity.