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**DEVELOPING JAVASCRIPT WEB APPLICATION FOR MOODLE 3**

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**METHODOLOGY ESSAY**

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# Part A - Theory – Agile Project Management

## Introduction

In this report, the methodology used in the project is Extreme Programing planning method. The report is separated into four sections

## Why Extreme Programing?

When a company wants to full the extreme program in the transition and make the use of program beyond the project development team, it needs to face some problems.

1. A bad communication between clients and developers.
2. Misunderstanding of user stories, the plan, and velocity.
3. A blurry deliver credible plans and schedules.

So be agile in adapting to client feedback and changed requirements is very important for software management.

## History

Agile management of IT project is widely used for software development. In the earlier stages of development the norm was to use “heavy” methodologies such as Waterfall or Spiral for software development. As a common agile method, the first Extreme Programming project was started March 6, 1996. Extreme Programming is one of several popular Agile Processes. Extreme Programing was developed in the mid 1990’s, but at that time there were not yet any guidelines that detailed what Agile was (Wells, D. ,n.d., para. 1) . In 2001 seventeen software developers meet in Utah to discuss the new ways of managing software projects and published the Agile Manifesto for Software Development.(The Agile Alliance). The Manifesto underlined common values and principals of all agile projects and led to what Agile is today. Agile Project Management is a lightweight method for software development projects.

## What is Extreme Programing?

Extreme Programing has been applied to be very successful at many companies of different sizes and industries all over the world. It is successful method because it leads customer to fell satisfied. It is not easy to deliver everything that as developers planed forego on some date very far in the future. With using this method, the process delivers the achievement as you plan it. Extreme Programming makes developers to respond confidently to changing requirements or adapting to client feedback.

The Extreme Programing emphasizes teamwork. Clients, managers, and developers are all equal important role in the collaborative team. It implements a simple and effective environment that encourages and enables developing teams to become highly productive. The team organizes itself about the problem and solve it very efficiently.

There are five essential ways that Extreme Programming can improve a software project: communication, feedback, simplicity, courage, and respect.

Programmers communicate with their customers, clients, managers and other programmers constantly. They deliver the production to the clients as early as they can and implement the changed requirements as the clients suggested. By every small unique contribution of every team member, the Extreme Programmers respond to changing requirements.

## Advantages and disadvantages

### Advantages:

1. The first advantage of this method is the cost estimates are based on software features instead of developer activity. It allows clients to make a decision on what are the priority needs and what are the exclusive needs depending on the time consuming and budget. By selecting the important requirement first, the client gets the highest value with the least time or budget spent, and this can trade off on the tiny increase in the project with the cost on additional features. The approach also allows both the user and the client to "pull the plug" on development during developing period at any time and the functional code still keeps highly valuable, even if it is incomplete.

2. The second advantage of the approach is resilience. In realistic life, requirements keep changing all the time either because of emerging new business features or simply because the original requirements was not complete. Extreme Programming plans and organise the changed requirements through user stories at the beginning of iterations, and get feedback during the time of iterations.

3. The third advantage is Cost Savings. Extreme Programming cut off unproductive activities to lower costs. It makes project developers to focus on coding instead of wasting time on insignificance work and meetings. The time spend on making changes increases software budgets. The traditional programming approaches make changes based on client’s feedback at the end of the delivery lifecycle compare to Extreme Programming that it allows changes at the development phase.

4. With using this method, it reduces the risks for the project. Extreme Programming reduces the risks that are related to programming. Conventional programming depends a lot on the key members or important members in a team. By breaking the all tasks into several modules, it separates the risks and reduces the dependence on any one in the team, no matter how critical the member is in the team.

5. Extreme Programming also make Satisfaction to employee, as the essay mentioned, it reduces the importance of individuals during the development time of process and gives every member satisfaction and retention. Extreme Programming is a value-led method that with just little scope for overtime, it can sets fixed worktime. Developers and managers constantly communicate to clients and gets feedback from them to ensure the delivery to be finished before the deadline.

### Disadvantages:

The biggest disadvantage of Extreme Programming is that it constantly needs the involvement of the client. Basically, developers need to communicate to client periodic. They need several times of meeting to decide every changes of the project. The method itself success depends on data gathering at many phases of the developing process. Some clients may not be available, and many others may do like such a constant involvement. Extreme Programming code is an approach that focus on program-centered rather than a design-centered approach, and with the fewer proper documentation, it generates issues in the project when project developers leave and new developers come in later.

Reference:

Extreme programming. (2017, October 20). Retrieved October 30, 2017, from https://en.wikipedia.org/wiki/Extreme\_programming

Wells, D. (n.d.). Extreme Programming: A Gentle Introduction. Retrieved October 31, 2017, from http://www.extremeprogramming.org/