



**Applications in Practical High-End Computing - Group Project**

Assignment - "Workflow"

**Requirements**

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1. Summary

Preparation of c

1. Literature review
2. Scrum Methodology
3. Theory

Scrum itself is an example of Agile methodology. It is quite new approach to project management issue. It fulfils all Agile manifest's assumptions. Scrum should be used in case of small and medium size projects because in the largest ones whole idea is being misused because of the size of a team.

Few facts about Scrum:

* Whole life-cycle of project is divided into *Releases*.
* *Releases* are divided into iterations, in this methodology called *Sprints*.
* *Sprint* should usually be not longer than 30 days and not shorter than 5 days.
* *Release* should contain between 4-12 *Sprints*.
* List of tasks in *Release* is called *Product Backlog*
* List of tasks in *Sprint* is called *Sprint Backlog*

Roles in Scrum:

* Scrum Master - person who gives tasks to others and organize work
* Development Team - all persons responsible for performing tasks
* Product Owner - usually external customer

Events:

* Daily Scrums - daily meetings (usually standing up) where each member of Scrum Team answer 3 questions:

- What have I done since last Scrum?

- What impediments have I met?

- What am I going to do next?

* Sprint review/planning meetings - at the beginning and at the end of each Sprint Scrum Team is reviewing results of last works and planning next Sprint Backlog.

1. Why Scrum?

Main motivation for starting using Agile techniques was quite simple - it is very popular in contemporary, developing world and most of companies working with Software Developing are using it. Since none of us was fluent in this matter we decided that it is worth a shot. Other reason was, that Scrum is actually simple and well-defined way of managing small team, and because we were very short in time, we have realized that we do not have weeks for learning more sophisticated methodologies.

1. Releases, Sprints

Because of the duration time of the project there was actually no point of making any division into several *Releases*.

*Release* has been divided into 4, very short Sprints. The reason for such a situation was that there are 4 students in our team, and 4 main responsibilities (requirements, design, implementation, tests), this way we hoped that we could focus on one job at the time. Another reason for that choice is placed in another header - about Roles.

**TODO DIAGRAM FROM MS PROJECT!!**

1. Roles

Development Team - main problem with dividing roles between us four was that (because of time) we have to use all of our human resources for hard work in Development Team. (Which was actually not only developing but also designing, testing etc.)

Scrum Master - natural problem was lack of Scrum Master when all workers are being used as a developers. We have solved this problem by moving position of Scrum Master within us. (That is another reason why we have decided to split *Release* into 4 *Sprints*.) Each of us was holding the Scrum Master position during one Sprint.

Product Owner - we have mocked our customer by sending them mails with questions which appeared during our work.

1. Meetings

Daily Scrums was very convenient way of exchanging information between team members. Ideally, Scrum should last about 15 minutes in a bigger team than ours. We have not achieve this number (record was 4 and half hour), but, as time went we get better with organisational issues. Another problem was the time of meetings. Ideally it should be always the same hour, but of course, it was impossible because of other classes etc. Because of time pressure we have decided to meet each day including Saturdays and Sundays.

1. Scrum Summary

We have tried to apply Scrum methodology to our project and outcome was generally not bad. During these few weeks we get familiar with general rule of whole process and get some experiences about Agile techniques. Unfortunately, we have met many impediments which have complicated our trials in this matter.

1. Responsibilities/Roles of team members.

not scrum - rather who was responsible for design, requirements etc

1. Costs estimation
2. Costs of finished work
3. Costs forecasting - "how much to finish"
4. Notations

UC\_U1 for example etc

1. Used Tools
2. Enterprise Architect ver. 9.2 Trial Ultimate

Main tool, used in creating System Requirements and in further Stages was mentioned above program. It is a very advanced, powerful tool which allows software engineer creating all kinds of UML diagrams and assures support and necessary documentation. We agreed that, for so important project we will use Ultimate edition of it - there was no place for risk.

This software is quite expensive (Ultimate edition costs $849) but vendor delivers free Trial 30-day version which was perfect for us, since project's life-cycle was about 20 days.

All diagrams presented in this document are prepared within EA. After few weeks of usage we can recommend it.

1. Tortoise SVN ver. 1.75

asdf

1. Google Code

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1. Microsoft Project 2010

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1. Eclipse Indigo Service Release 1

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