

# 1 Introduction

This plan is formed to give an overview of the organization and conceptualization of the project “GradiuZ”, and also what deliverables it will consist of and at what time these deliverables will be delivered. The purpose of this project is to learn how to work and programme as a group in a large software project and how to requirement test, additionally we also want to learn more about GIT and to learn the basics in android programming. The project is developed within the course DAT255 “Software Engineering Project”.

The project is scalable meaning that it could be expanded with more functions later in the developing process but could be tested and played also in the early stages. The timeplan below is an estimation and will probably be revised and modified throughout the elapse of the project. The project developed through an Agile work process, and will be held within the limitations that this process puts upon the project.

## 2 Project Organization

The work is divided into a number of content areas. Each content area is lead by a committer which is responsible for the content area. The responsible comitter is also responsible for delegating the workload amongst the collaborators in the content area for achieving the completion of the tasks within each iteration.

The work is divided into the following content areas:

- Project management: Patrik Nygren
- Requirements: Michael Jasinski
- Change management: Martin Bäckman
- Development: Michael Jasinski
- Architecture: Patrik Nygren
- Test: Martin Bäckman
- General: Rehan Butt
- Design management: Rehan Butt

## 3 Project “GradiuZ” overview

The application will be a space game. In the end product the software will be a sidescrolling game or a game where the spaceship moves in a straight line with monsters and other objects moving towards the spaceship “attacking” it. The spaceship will collect points by flying into coins floating around in space and in that way increasing the life or force of the spaceship, in its resistance of “hits” from objects or monsters.



## 4 Project Objectives and Milestones

This section covers objectives for the entire “Gradius” project.

- Learning/Setting up Git repository and setting up the project in the repository.
- Learn Android, and android specific programming for game development within the relevant area.
- Learn Agile methodology for development in group, and other relevant methodology from the website/book.
- Learn requirement engineering.
- Learning how to manage a software project.
- Learning and applying requirements testing throughout the project.

This section covers the Milestones of the “Gradius” project.

- Creating an architectural design for the project, and then implementing the design.
- Creating the starting activity for the game with the option of starting the game and making those clickable.
- Setting up the “frame” for the actual “game area” and making the spaceship movable with basic buttons (back/forward and sides).
- Creating a simple object moving up and down on the frame.
- Implement the physics into the movement of the spaceship so that it accounts for acceleration and such.
- “Throwing” in some basic objects, in the form of simple boxes and triangles into the game and implement “collision handling” between the objects and the spaceship.
- Making the objects move (fly through space) in some predetermined path.
- Implementing the accelerometer for movements of the spaceship.
- Deploying on Android market!

Phase	Iteration	Primary Objective (risks and use cases scenarios)	Scheduled start or milestone	Duration Estimate (calendar days)
Inception/ Warm-up	1	<ul style="list-style-type: none"> <li>• Learning git and the basic workflow of the VCS.</li> <li>• Learning Android and the common practices of game development.</li> <li>• Setting up git repository.</li> <li>• Setting up android SDK on the Eclipse IDE.</li> <li>• Creating a simple architectural design, with a class diagram of the project.</li> <li>• Meeting with tutors. Project organization and plan agreed upon.</li> </ul>	2012-03-23 - 2012-03-30	7
Elaboration	2	<ul style="list-style-type: none"> <li>• Learn Agile methodology for development in group</li> <li>• Creating the starting activity for the game with the option of starting the game and making those clickable.</li> <li>• Breaking up project into units and researching resources to evolve each unit.</li> <li>• Organize the main tasks for each collaborator of the project.</li> </ul>	2012-03-30 - 2012-04-06	7
Elaboration	3	<ul style="list-style-type: none"> <li>• Agree on naming conventions</li> <li>• Learn requirement engineering.</li> <li>• Learning and applying requirements testing throughout the project.</li> <li>• Setting up the “frame” for the actual “game area” and making the spaceship movable with basic buttons (back/forward and sides).</li> <li>• revision of milestones and objectives (this) to add or remove features</li> </ul>	2012-04-06 - 2012-04-13	7

Construction	4	<ul style="list-style-type: none"> <li>• Agree upon general structure of the project, and revision the original plan (this)</li> <li>• Creating a simple object moving up and down on the frame.</li> </ul>	2012-04-13 - 2012-04-16	3 s
Construction	5	<ul style="list-style-type: none"> <li>• Implement the physics into the movement of the spaceship so that it accounts for acceleration and such.</li> <li>• Agree on a management process</li> <li>• revision of milestones and objectives (this) to add or remove features</li> </ul>	2012-04-15 - 2012-04-22	7
Construction	6	<ul style="list-style-type: none"> <li>• Finalize structure</li> <li>• “Throwing” in some basic objects, in the form of simple boxes and triangles into the game and implement “collision handling” between the objects and the spaceship.</li> <li>• Improve usability and first impression by blackbox testing the game, “user” testing, and letting the user review the game.</li> <li>• Establish a functioning management process for the project</li> <li>• revision of milestones and objectives (this) to add or remove features</li> </ul>	2012-04-29 - 2012-05-06	7
Construction	7	<ul style="list-style-type: none"> <li>• Improve usability and first impression by blackbox testing the game, “user” testing, and letting the user review the game.</li> <li>• Making the objects move (fly through space) in some predetermined path.</li> <li>• revision of milestones and</li> </ul>	2012-05-06 - 2012-05-12	7

		objectives (this) to add or remove features		
Transition / End Game	8	<ul style="list-style-type: none"> <li>• End game</li> <li>• Implementing the accelerometer for movements of the spaceship.</li> <li>• Finalize launch collateral</li> <li>• Deploying on Android market!</li> </ul>	2012-05-12 - 2012-05-end of course	7

## 5 Deployment

N/A.

## 6 Lessons Learned

N/A.