

[IntroLab]

Introduction to a Monolithic Asteroids Game

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Introduction: Asteroids is a multi-directional shooter arcade video game released in November 1979 by Atari Inc. and designed by Lyle Rains and Ed Logg.

The player controls a spaceship in an asteroid field which is periodically traversed by enemy spaceships. The objective of the game is to shoot and destroy asteroids and enemy spaceships without colliding with asteroids or being hit by the counter-fire of enemy spaceships. The game becomes harder as the number of asteroids increases, and move faster.

Objectives: The introduction lab [IntroLab] includes a simple implementation of a monolithic asteroids game that is intended to form the basis for subsequent projects in the course. The first simple version includes an implementation of the player spaceship using libGDX.

The purpose of the first project is to become familiar with the libGDX library to make a 2D Asteroids game.

libGDX is a free and open-source game-development application framework written in the Java programming language with some C and C++ components for performance dependent code. It allows for the development of desktop and mobile games by using the same code base. It is cross-platform, supporting Windows, Linux, Mac OS X, Android, iOS, and web browsers with WebGL support.

Class Work: To get started with the lab follow the following steps:

- Download and install [JDK](#)
- Install [Netbeans IDE](#)
- Clone the provided [\[SB4-KOM\]](#) repository from GitHub
- Open the “*AsteroidsLibGDX*” project in Netbeans and run the game by right clicking project and select “*Run*”.
- Implement an enemy spaceship in the project. The enemy spaceship should shot and move randomly. You can find inspiration in the videos for today’s class.

What is next?: In future projects, you have to implement the Asteroids game and add new extensions using different component frameworks and models in Java.

Resources: [\[libGDX\]](#), [\[Stackoverflow help\]](#) and [\[libGDX wiki\]](#).