

## Software University

### Java Fundamentals Course – Team assignment

#### Team “Dallas”

**Members:** Iliya Naydenov, Ivaylo Hristov, Plamen Koynov, Tihomir Dimov

**1. Game Title:** “Bulgarian Traffic”

**2. Gameplay:** User drives a car on a very busy highway, trying to avoid other cars. The goal is to gain as much as possible points by overtaking and avoiding collisions with the other cars. At the beginning, user starts the game with total number of 5 lives. Each collision with another car takes a live from the user. Game ends when the number of lives reached zero.

**3. Technical background:** SWING GUI toolkit

**4. Game structure:**

Const.java – Holds all global constants from the game. Contributors: Plamen, Tihomir

Launcher.java – Launches the game. Contributors: Iliya, Plamen

Assets.java – Creates player and enemy cars, Contributors: Iliya

Road.java – Creates road, Contributors: Iliya, Plamen, Tihomir

Display.java – Creates the game canvas and window. Contributors: Iliya, Plamen

gfx.java - Ivo

Player.java – Defines player behavior, calculates score and lives left. Contributors: Iliya, Plamen, Tihomir

SpriteSheet.java – Loads graphics sprite sheet. Contributors: Iliya

Enemy.java – Defines enemies’ behavior. Contributors: Iliya, Plamen, Tihomir

Game.java – Main game class. Holds the tick() and render() methods. Contributors: Ivo, Iliya, Plamen, Tihomir

Menu.java – Creates the main menu. Contributors: Ivo, Iliya

InputHandler.java – Manages the game controls. Contributors: Plamen, Iliya

StateManager.java, State.java, GameState.java – Handle different game states

**5. Project challenges:**

Some of the team members haven’t started OOP course yet, which caused bottlenecks in the development process

**6. Further development:**

Create special enemies – Ambulance, police car, lorry or Boyko Borisov’s cortege. Enemies will have additional animation and appear behind the player. Avoiding special enemy will give more points or additional live