SE 3190: Construction of User Interfaces

Fall 2024

Midterm Project Proposal

# SE 3190 Midterm Project Proposal: Team #19

- Nathanial Boehlje nboehlje@iastate.edu
- Nathan Willimack nawilli@iastate.edu
- 10/5/2024

## **Table of Contents**

- 1. Introduction
  - 1.1. About Nathanial Boehlje
  - 1.2. About Nathan Willimack
- 2. Purpose
- 3. Goals and Objectives
  - 3.1. Goals
  - 3.2. Objectives
- 4. Project
  - 4.1. Description
  - 4.2. Wireframes
  - 4.3. Images
- 5. Resources
- 6. Future Work
- 7. Final Comments

### 1. Introduction

#### 1.1. About Nathanial Boehlje

Nathanial is a sophomore in Software Engineering. He has professional experience developing web applications using technologies such as JavaScript, HTML, CSS and C# (.NET).

More recently, his professional focus has shifted to backend infrastructure. This includes the design and development of Web APIs, cloud infrastructure, and IoT messaging systems.

#### 1.2. About Nathan Willimack

Nathan is ...

## 2. Purpose

Trying to keep you mind stress-free while waiting for something personally significant to occur can be challenging, sometimes the most effective way to reduce stress is by engaging in a healthy distraction.

Simple, browser-based games can be an enjoyable way to spend time while sitting in a waiting room or attempting to clear you nerves before an important presentation. For example, waiting at the doctor's office or taking a small break right before you deliver a stressful update on your project at work.

# 3. Goals and Objectives

#### 3.1. Goals

- 1. To develop an entertaining browser game that will provide a small (non-addictive) distraction to players. I.e. provide a small dose of joy to ease the mind before a potentially stressful event.
- 2. The game should be interactive and simple. It should also support player personalization and recognition of achievement.

#### 3.2. Objectives

- 1. Develop an interactive space travel game where the user provides input through their keyboard to direct a spaceship through a field of asteroids.
  - i. Users will navigate their ship by pressing the right and left arrow keys.
  - ii. Users can shoot at the asteroids to destroy them, by pressing the space key.
  - iii. The game ends when the ship is struck by an asteroid OR 5 minutes has elapsed.
- 2. Develop personalized player experience.
  - i. Allow users to create a custom user profile and upload a photo of themselves on a "profile" page.
- Develop a leader-board page where users can view their 10 highest scores. (Recognition of player achievement)
- 4. Develop 4 web pages:
  - i. A main/central page with information about the game and links to the 3 other pages.
  - ii. The game surface page, where the user plays the game.
  - iii. A profile page where the user can view and edit their profile information.
  - iv. A leaderboard page where users can view their top 10 highest scores.

# 4. Project

# 4.1. Description

The game will be a "space invaders" style shooter where the user directs their ship with the right and left arrow keys, clearing the asteroids from the ship's path.

- 4.2. Wireframes
- 4.3. Images
- 5. Resources
- 6. Future Work
- 7. Final Comments