**Project title**: Development of computer games in Python

**Project members:**

* Miras Sultangazy

The student of Astana IT University

2nd course of “Cybersecurity” specialty

(Astana, Kazakhstan)

* Danial Zhamanov

The student of Astana IT University

2nd course of “Cybersecurity” specialty

(Astana, Kazakhstan)

* Baidar Zhubanyshev

The student of Astana IT University

2nd course of “Cybersecurity” specialty

(Astana, Kazakhstan)

**The main purpose of the project:** The primary objective of the PyGamePlay project is to leverage the powerful combination of Python programming language and PyGame library to develop engaging and interactive computer games. This project aims to explore and exploit the full potential of PyGame, a cross-platform set of Python modules designed for writing video games. The focus will be on creating captivating gaming experiences that showcase the versatility and capabilities of PyGame. Also, this project is useful for the beginner game developers, to be familiar with how game development process is structured, and organized.

**Key Goals and Objectives:**

* Skill Enhancement: The project seeks to enhance the programming skills of the development team by working on real-world game development scenarios. It will provide hands-on experience in Python, reinforcing concepts such as object-oriented programming, event handling, and game loop implementation.
* Exploration of PyGame Features: PyGame offers a rich set of features for game development, including graphics rendering, sound support, and user input handling. The project aims to explore these features comprehensively, understanding how they can be effectively utilized to create visually appealing and immersive gaming environments.
* Cross-Platform Compatibility: PyGame is known for its cross-platform compatibility, allowing games to be run on various operating systems. The project will ensure that the developed games can seamlessly run on different platforms, promoting accessibility and a broader audience reach.
* Innovation and Creativity: Through the development of diverse game concepts, the project encourages innovation and creativity. Team members will have the opportunity to brainstorm unique gameplay mechanics, design visually striking graphics, and implement imaginative storylines.
* Community Engagement: The project will actively engage with the PyGame community, seeking feedback, sharing insights, and contributing to the collaborative spirit of open-source development. This fosters a sense of community involvement and provides an avenue for knowledge exchange.
* Educational Outreach: The project has a secondary objective of serving as an educational resource for aspiring game developers. Documentation, tutorials, and sample code will be created and shared to facilitate learning within the wider programming and game development community.

**Expected Outcomes:**

* A collection of polished and playable computer games developed using Python and PyGame.
* Increased proficiency in Python programming and game development concepts among the project team members.
* Documentation and educational materials to support learning and knowledge dissemination.
* Contributions to the PyGame community through shared insights, bug reports, and potential code contributions.
* Showcasing the capabilities of PyGame through innovative and entertaining games.

**Contact information and feedback form:**

We value your feedback and inquiries. Feel free to reach out to us using the contact information below:

Email: 221847@astanait.edu.kz

Phone: +7 (705) 117 83 75

Address: Astana IT University

Kabanbay Batyr Ave, 19

Nur-Sultan, Kazakhstan

**Feedback Form:**

We appreciate your feedback as it helps us improve and tailor our games to meet your expectations. Please take a moment to share your thoughts with us through the following form:

<https://docs.google.com/forms/d/e/1FAIpQLSeeCSiG_6Qh151-xE96dQcMekmbzX-DdMknTkWq3mwSKSsVuQ/viewform?usp=sf_link>