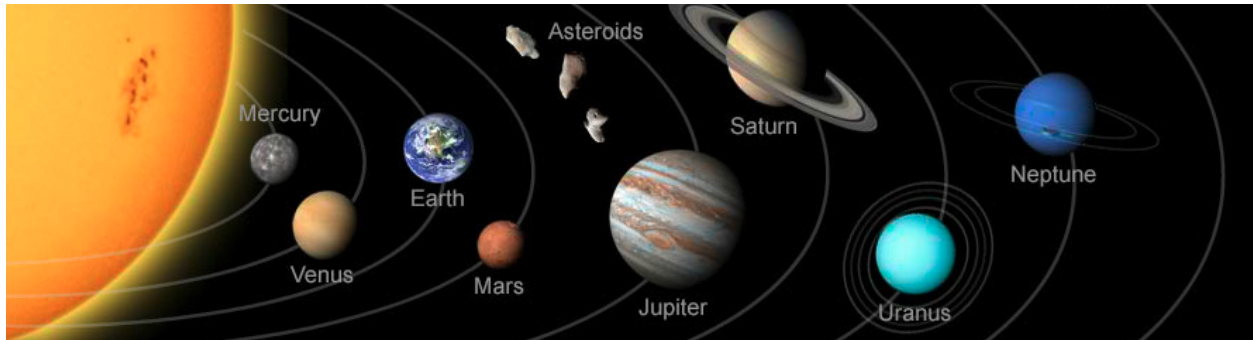# Unity Programming Test

Thank you for taking the time to complete the following programming test! Please read the instructions carefully and complete it to the best of your ability.

The Solar System Application

The basic goal of the test is to write the code for a simple, functioning solar system. Together with this document, you have received the Solar System project for Unity. Opening it, you will find that it is already set up with a Scene file and all required assets. The task is to write the corresponding code to make it function based on the following criteria:

- All planets orbit the sun
- The moon orbits the earth

For reference, you can also use the illustration above.

We are aware that this task can be completed in a couple of lines of code, however the task is meant to allow you to show us your individual strengths in an open ended way so please do not do the bare minimum to complete the task as that makes it hard for us to judge. The things we want to assess with this task are:

- General coding proficiency
- Knowledge of Unity
- Knowledge of software architecture
- Knowledge of game programming patterns

When reviewing your test we are specifically looking for

- The Task being fulfilled as specified
- Consistent coding conventions
- A clean and extendable architecture (optional for Juniors)
- Code following SOLID principles (optional for Juniors)

Additionally you can for example:

- Structure your code for testability and write Unit tests
- Explain your process and decisions in writing
- Make the project visually appealing
- Use and show knowledge of common tools and frameworks such as DOTween, Zenject, UniRX, UniTask, Cinemachine etc.
- Create additional features such as
  - Adjustable timescale
  - Smooth camera movement
  - A spaceship that is controlled asteroid style
  - Debug tools for previewing planet paths
  - Scalable UI that works on different aspect ratios
- Or anything else to show off your skillset

We expect you to invest 1-2 hours. Just let us know how much time you actually spent for the test and do not overdo it. We do not expect a full day's worth of work.