**Analyse Game Engines/frameworks**

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| **Framework/Tool** | **Pros** | **Cons** |
| Unity | Extremely versatile with a vast community and asset store. Can create games for multiple platforms with high-quality graphics and physics. | Can have a steep learning curve for beginners. The free version has limited features compared to the paid version. |
| GoDot | Open-source, free to use and learn with a node-based programming system. Supports a wide range of platforms with 2D and 3D capabilities. | Compared to other game engines, the community and asset store may be smaller. May have performance issues with complex games or large scenes. |
| Unreal Engine | Excellent graphics capabilities and tools for creating high-end, AAA-quality games. | Requires more advanced programming knowledge compared to other engines. |
| GameMaker Studio | Simple and easy to use for creating 2D games with a drag-and-drop interface. Supports a wide range of platforms. | Limited to creating 2D games only. More complex games may require programming knowledge. |
| Phaser | Ideal for creating 2D games for the web using HTML5 and JavaScript. Open-source and free to use. | Limited to creating 2D games only. May require more advanced programming knowledge for complex games. |
| Cocos2d-x | Cross-platform game engine for creating 2D games with support for various programming languages including C++, JavaScript, and Lua. Free to use and open-source. | May require more advanced programming knowledge compared to other engines. Limited graphics capabilities compared to engines like Unity or Unreal. |
| Construct | Easy to use and learn with a drag-and-drop interface. Ideal for creating 2D games without programming. | Not ideal for creating complex, high-end games or games that require advanced graphics or physics. |

**TOP 3 ENGINES**

**Unity**

**Pros:** - Versatile game engine with a large community and asset store offering a vast range of tools and resources for game development.

- Ability to create games for multiple platforms such as PC, mobile, consoles, VR, and AR with high-quality graphics and physics simulation.

- Provides a visual editor with a wide range of tools and options for level design, animation, and character control.

**Cons:** - Steep learning curve for beginners who may require some time and effort to get started with Unity.

- The free version has limited features compared to the paid version, which can be a disadvantage for game developers on a budget.

- Can have performance issues with complex games or scenes if not optimized properly.

**GoDot**

**Pros:** - Open-source game engine, free to use and learn, with a node-based programming system that is easy to use.

- Supports a wide range of platforms, including PC, mobile, web, and consoles, with 2D and 3D capabilities.

- Offers a built-in script editor, animation tools, and physics engine.

**Cons:** - Compared to other game engines, the community and asset store may be smaller, which can limit the number of resources available for game development.

- May have performance issues with complex games or large scenes due to its design, which may require optimization.

- Developing in GoDot requires a certain level of programming knowledge, which may be a disadvantage for beginners.

**Unreal Engine**

**Pros:** - Offers excellent graphics capabilities and tools for creating high-end, AAA-quality games.

- Supports a wide range of platforms such as PC, consoles, mobile, and VR/AR, with advanced physics simulation and visual effects.

- Offers a wide range of tools for animation, visual scripting, and character creation.

**Cons:** - Requires more advanced programming knowledge compared to other engines, making it less beginner-friendly.

- The engine's complexity can make it challenging to learn and navigate, which can take longer for developers to get started.

- The engine's high-end graphics and physics simulation capabilities may require powerful hardware to run smoothly.

I will use GoDot for this “small” project