# Complex Game Systems Design Brief

## Unity Networking

### Identify what your system is by name and description.

The system that I will be creating is a modular networking game system which will allow the user of the package to interact with making there own multiplayer game with an array of functions that will make creating games more streamlined.

### Outline the objective and use of your system.

The objective that I have for the system I want to create

### If applicable, describe and reference any 3rdparty libraries that your system relies on, otherwise Identify you are not using any.

This Game System will rely on a list of 3rd party libraries to aid in the creation of the tool such as [ParrelSync](https://github.com/VeriorPies/ParrelSync), [FishNet](https://fish-networking.gitbook.io/docs/) and, [Unity’s New Input System](https://docs.unity3d.com/Packages/com.unity.inputsystem@1.0/manual/QuickStartGuide.html). ParrelSync is a useful tool that will allow me to test the multiplayer game without needed to constantly rebuild the project, [ParrelSync](https://github.com/VeriorPies/ParrelSync) creates another unity editor and can efficiently mirror what is being changed from the original project. Although useful, ParrelSync will not aid me beyond just testing to see if functionality is working and because of that it will not be included in the final build of the project.

FishNet is what I will be using for the basis of my project and will assist in creating the multiplayer game. Although useful I hope to not fully rely on using FishNet

### Identify and outline the mathematical operations involve, allowing your system to function as intended.

### Explain what advance algorithm/s you will be implementing (diagram/s could be used to help support your explanation).

### Illustrate how your system should be integrated into an application.

### Prove how you will design your complex system to be modular. (diagram/s could be used to help support your explanation)

### Provide a reference list of the sites used following the Harvard Referencing method.