Phase 1 documentation :

Aim: Understand what JSBSim and FlightGear are, what they do, and how people use them together.

1) What JSBSim and FlightGear are (in your own words), and how they are connected?

In my opinion, JSBSim serves as the primary flight dynamics simulator, essentially acting as the main brain through which we can simulate real-life aeroplane problems. We can essentially simulate the physics engine – the mechanism that enables the aeroplane or any flying object to fly, or the mechanism that allows the aeroplane to fly in a suitable environment. We give inputs like throttle, attitude, velocity, environmental conditions, wind, etc.

Regarding FlightGear, it's basically a flight simulator that has a graphical interface. It has no brains; we can simply fly an aeroplane in it without giving it autopilot control. Basically, we can use it like a game, simply controlling it with a joystick or any kind of keyboard.

However, when we connect it through JSBSim, JSBSim contains all kinds of physics engines and all kinds of output data in XML format, which trains FlightGear on these things you have to do, and you have to fly the plane accordingly.

2) Where are they used?

They are used in flight simulation, like flight control training, AI-based drone - droame:)
University projects

3) Links to examples you found

https://github.com/JSBSim-Team/jsbsim?tab=readme-ov-file
https://youtu.be/eEwiY_MJ2H4?si=uTJdQAg2tFK0D3Io

4) Diagram of the system workflow