Group 4: We need to design software for an aircraft simulator.

 The system will simulate a single-engine propeller general aviation airplane but

can be customized for specific aircraft manufacturers/models.

The system will provide a cockpit with one seat, a control yoke, a throttle control lever, a propeller control lever and a fuel mixture lever.

All of the instruments in the cockpit will be displayed on a computer screen.

 All of the imagery the operator sees through the windows of the cockpit will be computer generated.

a)List all the objects in the problem description.

b)For each object, list at least 3 characteristics (or attributes).

c)For each object, list at least 3 operations (or methods).

**Answer**:

Objects:

a) Cock pit with one seat, control yoke, throttle control lever ,

propeller control lever, fuel mixture lever, Display Screen, Simulate engine.

b)Attribute OR Data Types OR Characteristics :

Cock pit with yoke controller, lever controller, propeller controller:

data, Type: we can have different shapes of controllers it can be u, v &m or circular type.

radio microphones.

chronometer.

Direction.

connect to external wings

air ratio

engine with a fuel pump.

object: Display Screen

data type or characteristics:

height,

fuel level,

temperature, etc.

Engine: Air Pressure,

ignition system,

combustion chamber.

c) Operations OR Behavior OR Methods OR Subroutines:

All the controllers are used to control high speeds, chronometer provides correct time during operation of a

craft even in inclement weather.

Radio micro phone used to send and receive the messages.

moves the craft in the specified direction.

once the propeller is initiated the blade starts rotation connected through a shaft.

Fuel lever maintains air ratio while burning the fuel.

Speeds up the aircraft and used to reach destiny in time.

Starting a engine, Stopping a engine.

Display Screen Operations: By viewing the readings

helps to reduce speed,

try to act defensively,

to what distance operator can travel.

Simulator Engine(means we can assume it as a visible properties but not touchable):

burns up the carbons to provide required energy to engine.

we can look over the pressure of air.

ignition system: view the engine start up or stop of an engine.