During the First week: the instructor started to talk about the training, what is the purpose of the training and what will be explained? The purpose of the training is to learn (simulator of airplane). What is the purpose of the simulator? and what is difference between flight simulator and real airplane? The purpose of the flight simulator is The Flight Simulation Systems, discipline enhances the use of flight simulators from a safety perspective by artificially re-creating aircraft flight and the flight environment. Flight simulation is used to train pilots, design aircraft, evaluate aircraft characteristics and handling qualities. Difference between simulator and real airplane is Controls in many simulators are light and typically not adjustable, nor do they change as aerodynamic forces change. In airplanes, the controls will become heavier the faster an airplane is moving. Also, the instructor teach (general knowledge about airplane) I learned (general knowledge about airplane) I learned the history of the plane. Who invented the plane? Who was the first company to do this? Also, I learned How to fly airplane and how to control about the airplane.

During the Second week: the instructor started to talk about (flight simulation system). flight simulation system is, discipline enhances the use of flight simulators from a safety perspective by artificially re-creating aircraft flight and the flight environment. Flight simulation is used to train pilots, design aircraft, evaluate aircraft characteristics and handling qualities. Also talk about Flight simulation systems integrate the following technologies: aerodynamics, propulsion, flight dynamics, flight control, avionics, visual systems, motion systems, real time computing systems, verification and validation, navigation, ground modeling, atmospherics, and air traffic control. This discipline is responsible for detailed technical analysis of simulators, including all of the analytical and flight test data employed in their development. The discipline is also responsible for monitoring that flight simulators are used properly and in accordance with federal regulations and guidance.

During the Third week: continue the second week of Flight simulation systems services such as:

1. Host computer (the main point)
2. Visual system
3. Motion system
4. Main Control room
   - Main control room: is room very important consisting of host computer, power supply, all services .
   - Host computer : is computer control and interface all services .
   - Motion system : control the motion of simulator and feeling you the motion in real .

During the fourth week : the instructor started to talk about (flight simulation system) interface services: Flight simulators utilize a range of interfaces to provide an immersive aircraft piloting experience:

1. Cockpit Interface: Replicates physical controls and instruments of a real cockpit for system manipulation.
2. Visual Interface: High-quality graphics and camera views recreate the aircraft and its environment.
3. Instrument Panel Interface: Virtual instrument displays for monitoring flight parameters.
4. Audio Interface: Realistic sound effects enhance immersion with engine noises, communication, etc.
5. Control Input Interface: Flight yokes, joysticks, and pedals control aircraft movement.

6. Navigation Interface: Avionics for navigation, communication, and autopilot control.
7. Weather Interface: Simulates various weather conditions affecting flight dynamics.
8. Multiplayer Networking Interface: Enables collaborative flying with others in the virtual airspace.
9. Scenario Management Interface: Allows users to select, modify, and practice different flight scenarios.
10. Data Visualization Interface: Presents flight data and metrics for analysis and improvement.

Together, these interfaces create a comprehensive flight simulation, ideal for training, skill development, and aviation enthusiasts.