## Part II - Requirements Development (60 Points Total, 20 each part)

Consider an in-flight entertainment system for a large passenger airplane, such as one of the large Boeing or Airbus intercontinental jet aircraft. One approach would be to load movies, shows, advertisements, etc. onto onboard storage while the plane is on the ground, and then deliver the content to passengers during the flight. The system would have a limited onboard storage capacity, as well as a restriction on the amount of content that could be exchanged per hour while docked at the gate.

Under this scheme a certain number of free channels would stream shows, ads, news, etc. on a pre-determined schedule, while one or more on-demand channel(s) would allow customers to select higher-end movies and shows for a fee (e.g. pay per view, PPV), from a list of content that was loaded on the plane before it left the ground. Passengers could ensure availability of desired titles by pre-paying online up to 24 hours before their flight, subject to capacity limits.

Demonstrate your mastery of Software Engineering by performing any two of tasks A, B, or C from the following list, plus task D:

Select Any 2 A. Draw a use-case diagram for this application.

B. Develop the use case "Watch PPV movie"

C. Draw a sequence diagram corresponding to the use case "Watch PPV movie".

Required: D. Develop a list of functional and non-functional requirements for this application.