UML and Class Hierarchy Diagram

CS 1337 Program 4
Thanh Hoang Nguyen

UML Diagrams

Aircraft
- seating_capacity: int
- number_of_engines: int
+ Aircraft(initSeats: int, initEngines: int):
+ virtual ~Aircraft():
+ virtual printCharacteristics() const: void
+ setSeatingCapacity(num: int): void
+ setNumberOfEngines(num: int): void
+ getSeatingCapacity() const: int
+ getNumberOfEngines() const: int

Fighter
- missile_capacity: int
- bomb_capacity: int
- number_of_cannons: int
+ Fighter(initMissiles: int, initBombs: int, initCannons: int, initSeats: int, initEngines: int)
+ ~Fighter():
+ printCharacteristics() const: void
+ setMissileCapacity(num: int): void
+ setBombCapacity(num: int): void
+ setNumberOfCannons(num: int): void
+ getMissileCapacity() const: int
+ getBombCapacity() const: int
+ getNumberOfCannons() const: int

Freight
- payload: float
- cruise_speed: int
- range: int
+ Freight(initPayload: float, initSpeed: int, initRange: int, initSeats int, initEngines: int)
+ ~Freight():
+ printCharacteristics() const: void
+ setPayload(num: float): void
+ setCruiseSpeed(num: int): void
+ setRange(num: int): void
+ getPayload() const: float
+ getCruiseSpeed() const: int
+ getRange() const: int

Recon
- num_of_cameras: int
- num_of_radars: int
+ Recon(initNumCam: int, initNumRadar: int, initSeats: int, initEngines: int):
+ ~Recon():
+ printCharacteristics() const: void
+ setNumOfCameras(num: int): void
+ setNumOfRadars(num: int): void
+ getNumOfCameras() const: int
+ getNumOfRadars() const: int

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Class Hierarchy Diagram

```
                    ┌──────────────┐
                    │   Aircraft   │
                    └──────────────┘
                           △
                           │
         ┌─────────────────┼─────────────────┐
   ┌───────────┐     ┌───────────┐     ┌───────────┐
   │  Fighter  │     │  Freight  │     │   Recon   │
   └───────────┘     └───────────┘     └───────────┘
```