SmartRefrigerator UML Diagram - Annotations

Annotated UML Relationships

Below is the annotated UML relationship for the SmartRefrigerator system:

```
Refrigerator (extends Thread)
  |
  |--- Composition --> Motor
  |        (Motor is created and managed by Refrigerator; it cannot exist without Refrigerator.)
  |
  |--- Composition --> FreezerUnit
  |        (FreezerUnit is created and managed by Refrigerator; it cannot exist without Refrigerator.)
  |
  |--- Aggregation   --> ManualGuide
           (ManualGuide is passed into Refrigerator externally; it can exist independently.)
```

Other Classes:
  SmartRefrigerator (contains main method)

Notes:
  Composition is denoted by a strong lifecycle dependency (filled diamond in UML diagrams).
   Aggregation is denoted by a weaker relationship where the part can exist independently (hollow diamond in UML diagrams).

ManualGuide

– instructions: String

+ displayGuide(): void

Motor

+ StartTheMotor():void
+ StopTheMotor():void

uses

uses

uses

Thread

Refrigerator

– brand: String
– model: String
– motor: Motor
– manualGuide:ManualGuide

+ StartSystem(): void
+ ShutdownSystem():void
+ readManual():void
+ run(): void

uses

FreezerUnit

+ activateFreezer()
  void
+ deactivateFree-
  zer():void

SmartRefrigerator