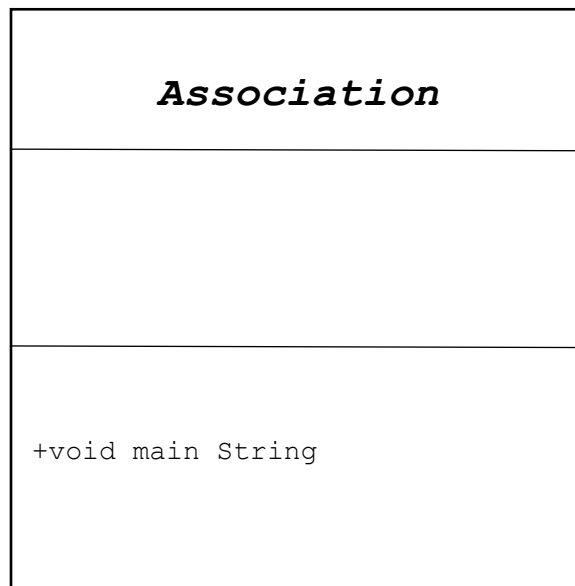# Lab Task:

A- Using the knowledge for association, aggregation and composition provided in the theory lecture video. Design a single UML diagram for all the three relationships. Also write a single program for the proposed UML diagram.

Association

Association
+void main String

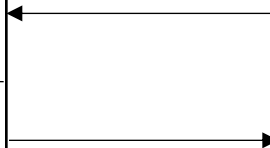| *Manager* |
|---|
| - *String name*
- *SwipeCard S* |
| + *getName(): String*

+ *logon() : void* |

SwipeCard
- *String madeofCard;* - *Manager manager*
+ *getMakeofCard():String* + *Swipe() : void*

Aggregation

```
Aggregation

Worker w1, w2;
Array List <worker> workers;
Manager m;
```

Manager

- *String name*
- *ArrayList worker*

+ *getName(): String*

+ *logon(Swipecarb s) : void*

Worker

- *String name;*

+ *getname():String*

Composition

```
┌─────────────────────────────┐
│            main             │
├─────────────────────────────┤
│                             │
│  project p                  │
│  Manager m;                 │
├─────────────────────────────┤
│                             │
│                             │
│                             │
│                             │
└─────────────────────────────┘
```
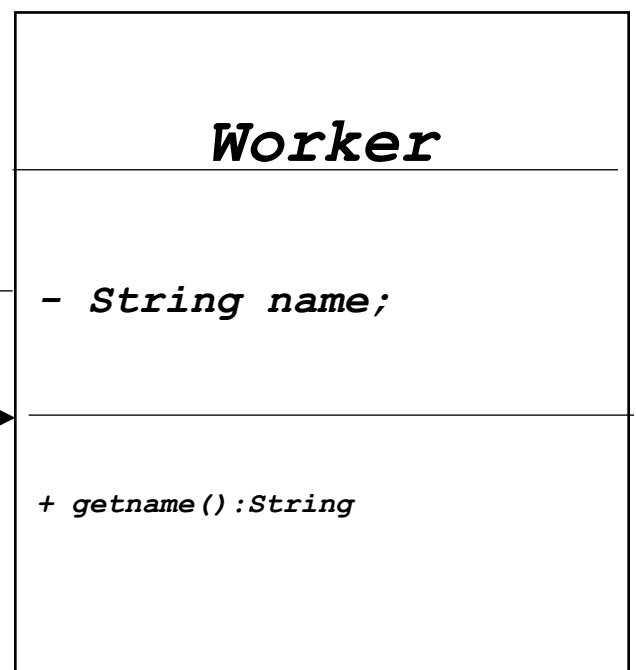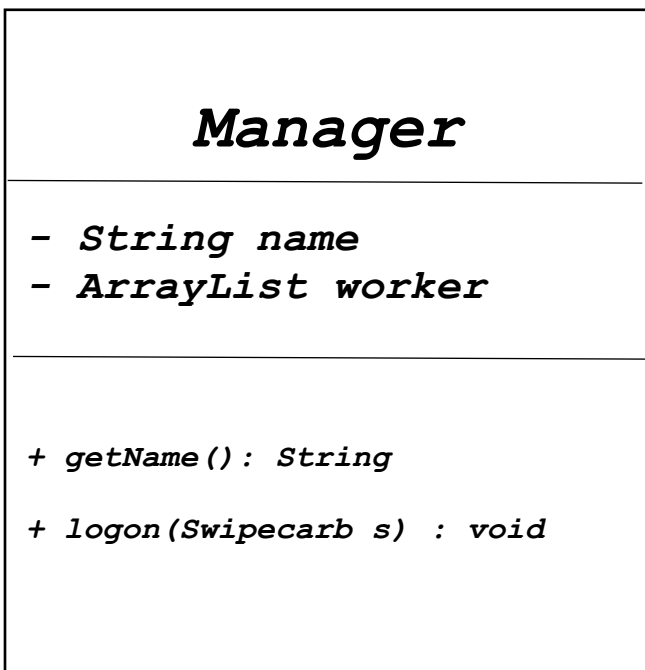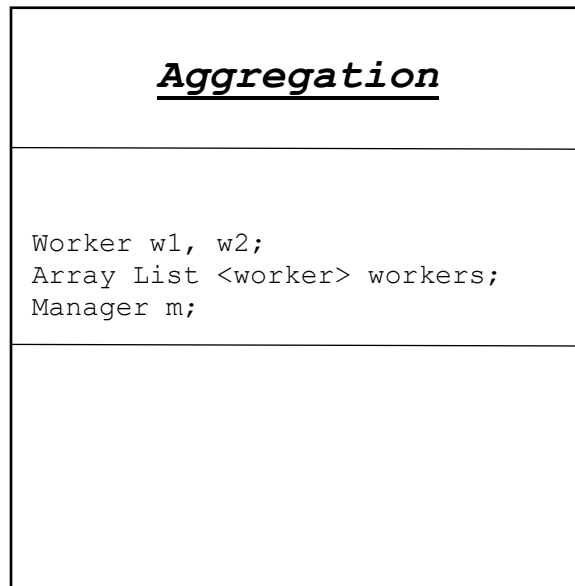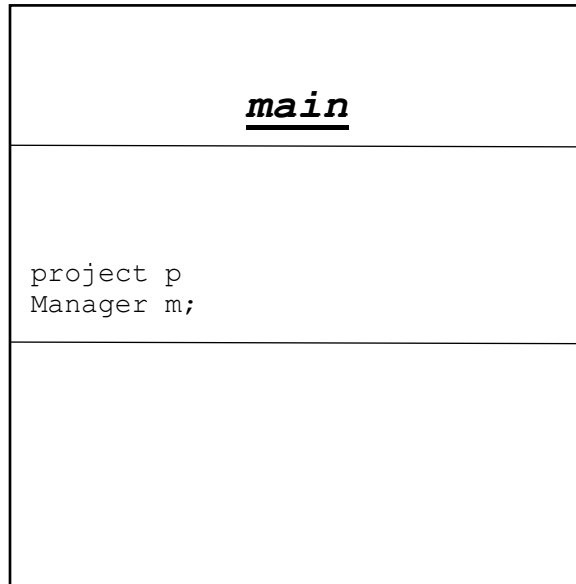
```
┌──────────────────────────┐        ┌──────────────────────────────┐
│        Manager           │        │           Worker             │
├──────────────────────────┤        ├──────────────────────────────┤
│ + project project;       │◄───────│ - Manager manager;           │
│ - String name;           │        │ + boolean IsSuccess          │
│ + double salary;         │        │                              │
├──────────────────────────┤───────►├──────────────────────────────┤
│ + getName(): String      │        │                              │
│                          │        │ +void setIsSuccess(boolean value) │
│ +howISManager(Swipecarb  │        │                              │
│ s) : void                │        │ + boolean getIssuccess()     │
└──────────────────────────┘        └──────────────────────────────┘
```