

Philip Pesic

Week 9

October 16 2022

Week 9 Lecture 9 Notes

Types of relationships

There are two main types of relationships, relationships between classes, and relationships between instances. Each of these has several types of individual relationships, such as Association and inheritance. These relationships can be hard to read and comprehend in the source, so programmers will often write UML diagrams to visualize relationships.

Ex:

myClass
-x: int
+myClass() +myclass(inX: int) +getX() int +setX(inX: int) void

Composition vs Aggregation

Composition is the relationships between the parts of a class and a whole. In composition, each part is dependent on the whole, if the whole dies, the part does too, and vice versa. In aggregation, parts of a class can live independently of the whole, and if the whole is deleted, the parts will still live.

Ex:

```
class* ptr = new object("Obj");  
  
//Creates pointer to new class object.  
  
Delete ptr;
```

Philip Pesic

Week 9

October 16 2022

Week 9 Lecture 9 Notes

//Deletes pointer, which deletes the object separately from the class