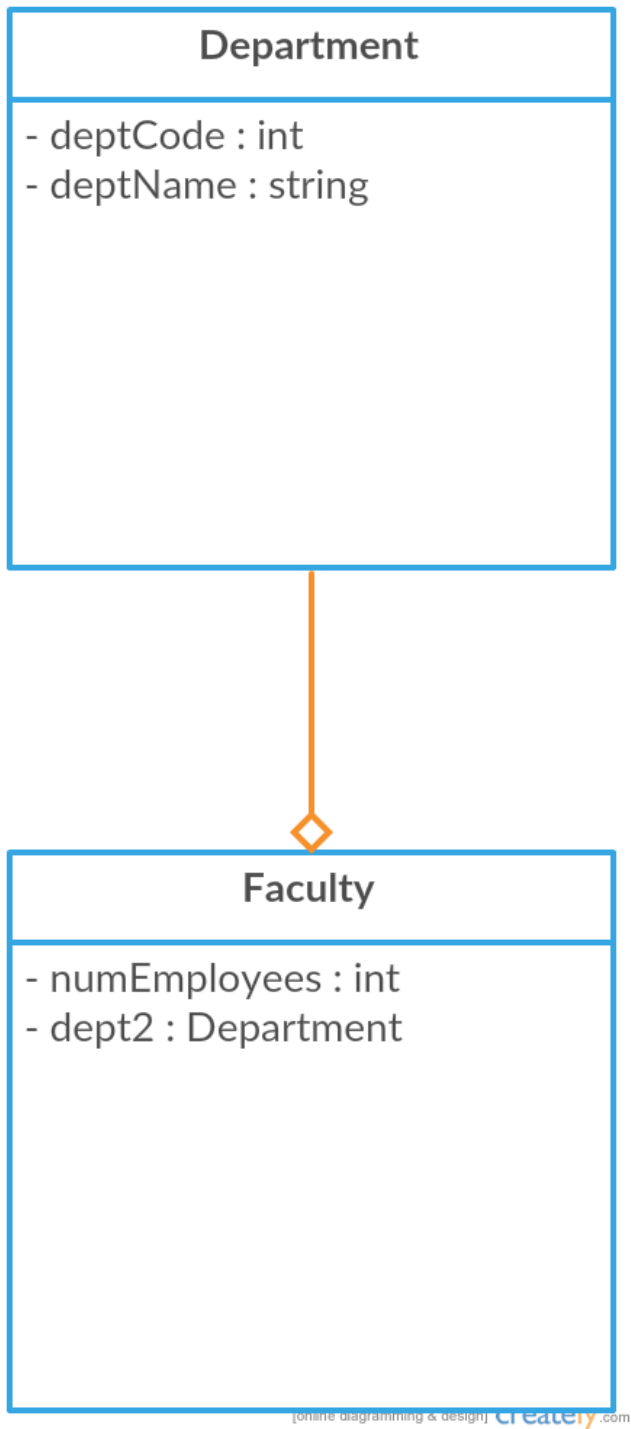


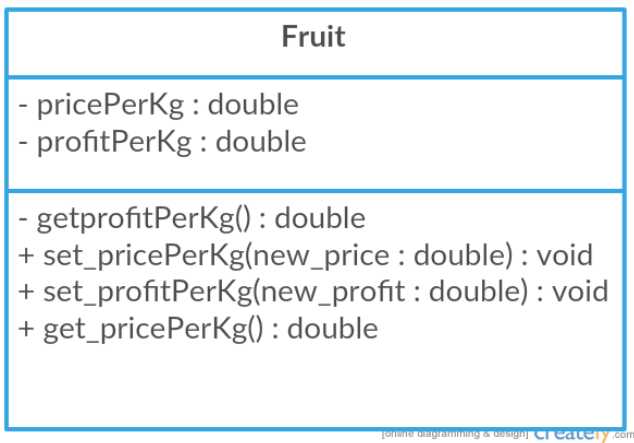
## LAB 5: INTRODUCTION TO CLASSES (UML DIAGRAMS)

The below UML are made using <https://creately.com/>.

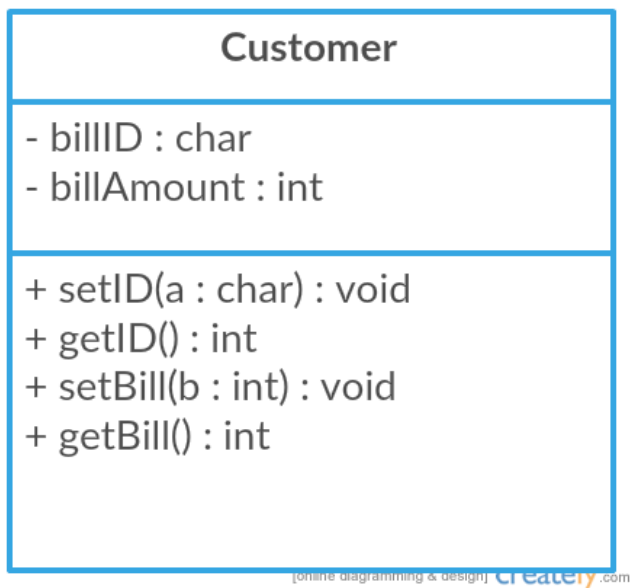
### Program 5.1



## Program 5.2



## Program 5.3



#### Program 5.4

Pet
- name : string - age : int
+ func1 () : void + print () : void {query} + Pet () : + Pet (testString : string, testNumber : int) : + ~Pet () :

#### Program 5.5

Polygon
- side : int - length : double
+ Polygon () : + Polygon (input : int) : + Polygon (input : int, input2 : int) : + Polygon (input : double, input2 : int) :

### Program 5.6

Code/ answers refer to answers/ code of Lab 5 in front

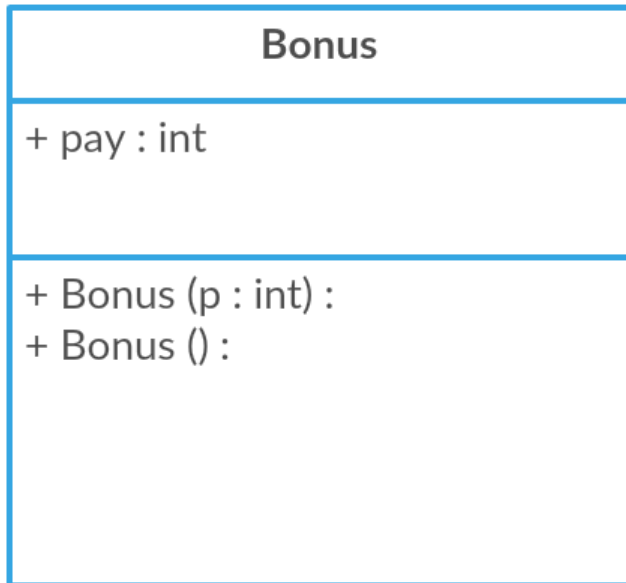
Date
- day : int - month : int - year : int
+ Date() : + Date(a : int, b : int, c : int) : + getDay() : int + getMonth() : int + getYear() : int

[online diagramming & design] Creately.com

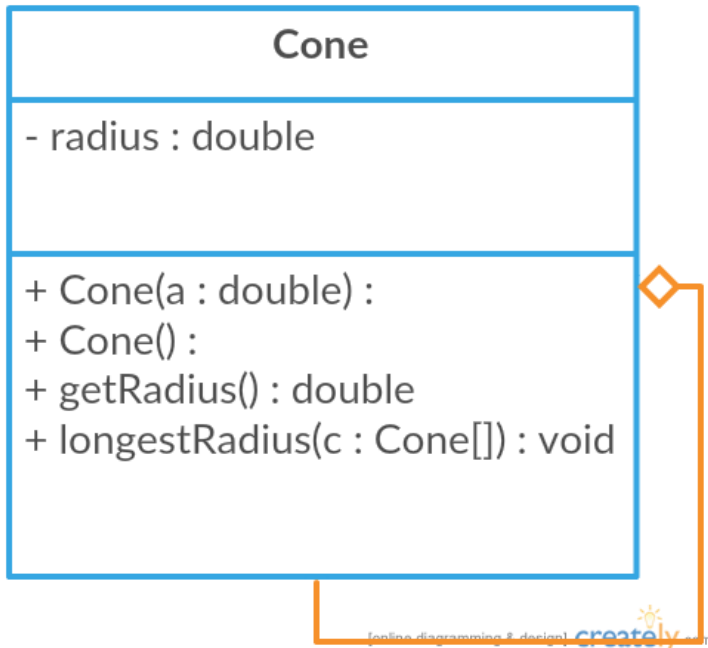
### Program 5.7, 5.8, 5.9

Circle
- radius : double
+ Circle(r : double) : + getRadius() : double + getArea() : double

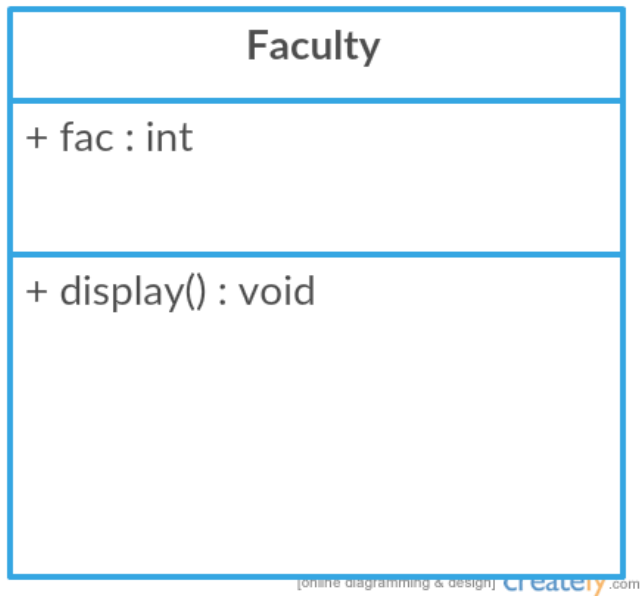
### Program 5.10



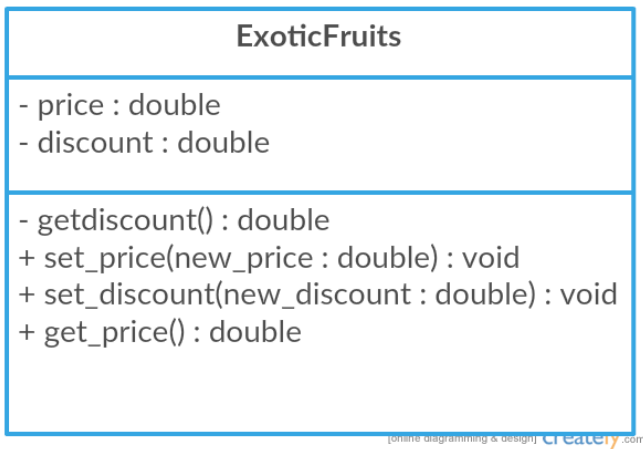
### Program 5.11



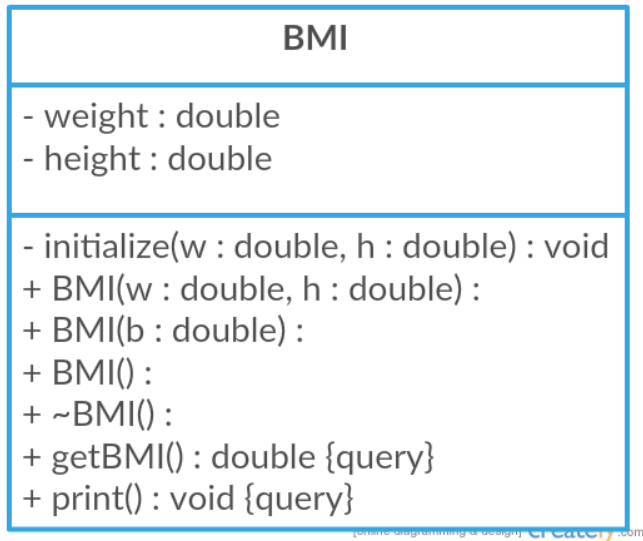
### Program 5.12



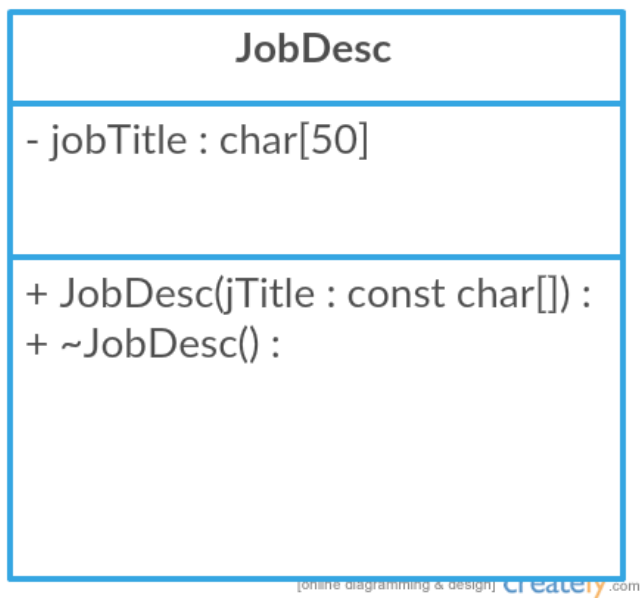
### Program 5.13



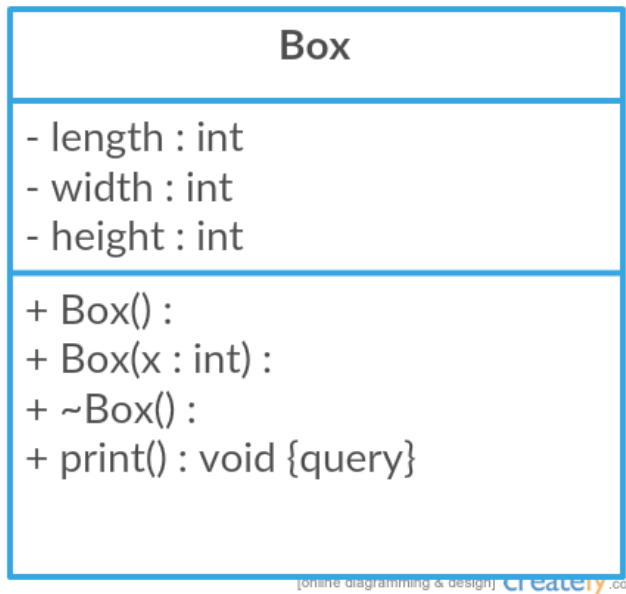
### Program 5.14, 5.15, 5.16



### Program 5.17

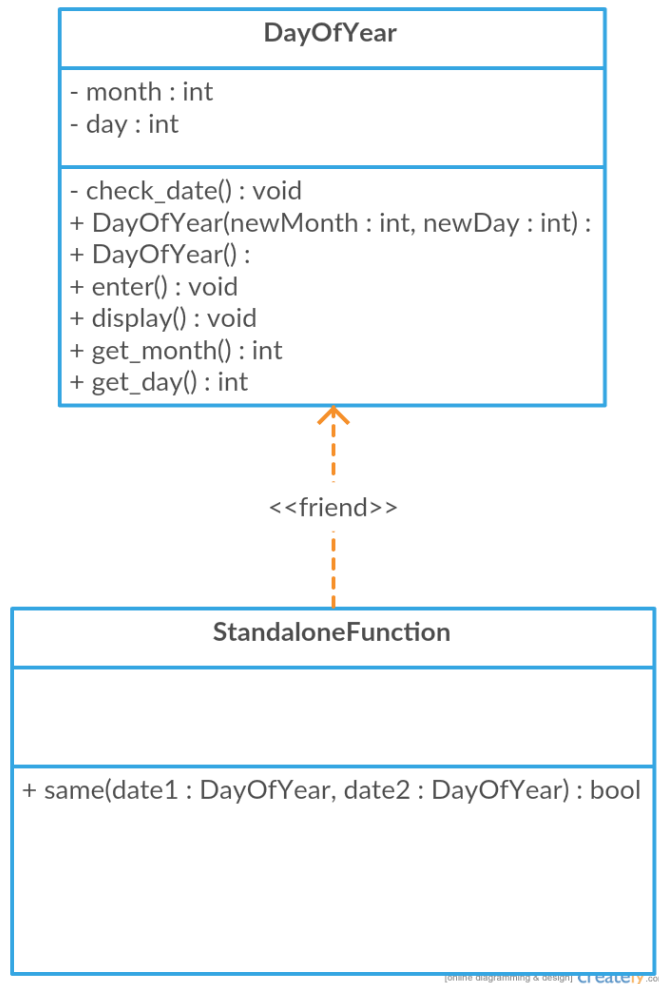


### Program 5.18





### Program 5.19, 5.20, 5.21



### Program 5.22, 5.23

Student
<ul style="list-style-type: none"><li>- name : char*</li><li>- subjects : SubjectCode*</li><li>- maxSubject: int</li><li>- subjectCount : int</li></ul>
<ul style="list-style-type: none"><li>+ Student() :</li><li>+ Student(n : const char[]) :</li><li>+ Student(max : int) :</li><li>+ Student(codes : const SubjectCode[], count : int) :</li><li>+ ~Student() :</li><li>+ getName() : const char* {query}</li><li>+ getSubject(index : int) : const char* {query}</li><li>+ print() : void {query}</li><li>+ setName(newName : const char[]) : void</li><li>+ insertSubject(code : const SubjectCode) : void</li><li>+ setSubject(index : int, code : const SubjectCode) : void</li></ul>