**Practical Assignment: Polymorphism – part 1**

**Topics : Dynamic Binding , virtual keyword, function overriding**

|  |
| --- |
| Animal |
|  |
| +legs():int  +feed(food:string):void |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Lion |  | Snake |  | Bird |
|  |  |  |  |  |
| +legs():int |  | +legs():int |  | +legs():int |

Write menu driven C++ Program to demonstrate dynamic binding (runtime polymorphism).

**Hints:**

1. legs member function return number of legs of object. E.g. if object of L ion class return 4, object of snake class 0, object of bird class 2 and if object of animal class return 0.
2. Feed member function display Object Name : eats food. E.g. if object is Lion and parameter is “meat”. Function will display Lion : eats meat. If object is Snake and parameter is “rat”.

Sample output

L:Lion

S:Snake

B:Bird

E:exit

Please enter your choice

L

Lion : eats meat

Number of legs = 4

L:Lion

S:Snake

B:Bird

E:exit

Please enter your choice

S

Snake : eats rat

Number of legs = 0

L:Lion

S:Snake

B:Bird

E:exit

Please enter your choice

B

Bird : eats insects

Number of legs = 2

L:Lion

S:Snake

B:Bird

E:exit

Please enter your choice

E