

1.

Static heap stored static variables and methods: main, Organization, Colony, BeeColony, University, FPTUniversity

Stack used for managing method calls and local variables. In Tester class, main method is used to stored method and local variables : obj1,obj2,df

Dynamic heap creating objects:BeeColony, Colony, FPTUniversity, University are create using keyword new and obj1, obj2, df are references to objects

2.

The Organization class is abstract because it contains an abstract method : communicateByTool()

3.

The Colony and University classes implement the communicateByTool() method because they both extend the Organization abstract class, which declares communicateByTool() as an abstract method.

4.

Polymorphism feature :

Inheritance and method overriding : class BeeColony, FPTUniversity, University

Polymorphism references: interfaces : Role, abstract class : Colony, Organization

5.

abstract classes are used to provide a base class for concrete subclasses to inherit from, while interfaces are used to define a set of methods that a class must implement.