Generics and Collections(Part 1)

Subject: CSW2(CSE3141)
Session: Feb 2024 to April 2024
Branch: CSE&CSIT
Section : All

Q1. Write a program to create a Student class that has members, name, roll number, and age. Design the Student class in such a way that it can take the roll number as an integer or string. Create a driver class that creates student objects and invokes the methods.

Q2. Write a program to create a Book class with member variables bookId, bookName, and price. Add the respective method and constructor to it. Create a driver class in that class and create two book objects. Compare the book objects according to their price. Print the details of the book objects.
Note: Overload toString and equals method.

Q3. Write a program to create a Car class with member variables model, color, and speed. Add the respective method and constructor to it. Create a driver class in that class and create two car objects. Compare the car objects according to their speed and print the details of the car that has a greater speed.
Note: Overload compareTo method of Comparable interface.

Q4. Write a program to create a Student class with members name, rn, and totalMark. Create an array of student objects and search a student object using linear search from the array.
Note: Overload compareTo method of Comparable interface.

Q5. Write a program to create a Student class with members name, rn, and total mark. Create an array of student objects and sort it using Bubble sort according to its rn.
Note: Overload compareTo method of Comparable interface.

Q6. Write a program to create an Animal class with member variables name, color, types (pet/wild). Override the hashCode method to print the unique id for the object. Create the objects of the Animal class and print its hashcode.