EXPERIMENT NO 7

package P2;

import java.util.Scanner;

class PlayerBase {

String name;

int age;

PlayerBase(String name, int age) {

this.name = name;

this.age = age;

}

void show() {

System.out.println();

System.out.println("Player Name: " + name);

System.out.println("Age: " + age);

}

}

class CricketPlayer extends PlayerBase {

String type;

String team;

CricketPlayer(String name, String type, int age) {

super(name, age);

this.type = type;

}

CricketPlayer(String name, String type, int age, String team) {

this(name, type, age);

this.team = team;

}

@Override

public void show() {

super.show();

System.out.println("Player Type: " + type);

if (team != null) {

System.out.println("Team: " + team);

}

}

}

class FootballPlayer extends PlayerBase {

String type;

String position;

FootballPlayer(String name, String type, int age) {

super(name, age);

this.type = type;

}

FootballPlayer(String name, String type, int age, String position) {

this(name, type, age);

this.position = position;

}

@Override

public void show() {

super.show();

System.out.println("Player Type: " + type);

if (position != null) {

System.out.println("Position: " + position);

}

}

}

class HockeyPlayer extends PlayerBase {

String type;

int jerseyNumber;

HockeyPlayer(String name, String type, int age) {

super(name, age);

this.type = type;

}

HockeyPlayer(String name, String type, int age, int jerseyNumber) {

this(name, type, age);

this.jerseyNumber = jerseyNumber;

}

@Override

public void show() {

super.show();

System.out.println("Player Type: " + type);

if (jerseyNumber != 0) {

System.out.println("Jersey Number: " + jerseyNumber);

}

}

}

public class PlayerDemo {

public static void main(String[] args) {

// Create player objects

CricketPlayer cricketPlayer = new CricketPlayer("Virat Kohli", "Cricket", 34, "India");

FootballPlayer footballPlayer = new FootballPlayer("Lionel Messi", "Football", 36, "Forward");

HockeyPlayer hockeyPlayer = new HockeyPlayer("Ajay Kumar", "Hockey", 28, 7);

// Display player information

System.out.println("=== PLAYER INFORMATION ===");

cricketPlayer.show();

footballPlayer.show();

hockeyPlayer.show();

// Demonstrate polymorphism

System.out.println("\n=== DEMONSTRATING POLYMORPHISM ===");

PlayerBase[] players = {

new CricketPlayer("Rohit Sharma", "Cricket", 35),

new FootballPlayer("Cristiano Ronaldo", "Football", 38),

new HockeyPlayer("Manpreet Singh", "Hockey", 31)

};

for (PlayerBase player : players) {

player.show();

System.out.println("-------------------");

}

}

}

A screenshot of a computer

AI-generated content may be incorrect.