Java Essentials Module 4 Case Study 2

Please run jar file to test the program.

Command: java -jar Module4CaseStudy2.jar

# JobApplication Class (includes main):

**import** java.util.Scanner;

**public** **class** JobApplication {

**static** Scanner *appInput* = **new** Scanner(System.***in***);

**static** HrTeam *jobApp* = **null**;

**static** **void** checkMarks(**int** a) **throws** MarksException {

**if** (a < 71)

**throw** **new** MarksException(a);

System.***out***.println("\nYour marks are sufficient for this application.");

}

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

System.***out***.println("\nWhich department would you like to apply for?");

System.***out***.println("1. HR ");

System.***out***.println("2. Technology ");

System.***out***.println("3. Product ");

**int** appChoice = *appInput*.nextInt();

*appInput*.nextLine();

**if** (appChoice == 1) {

*jobApp* = **new** HR();

} **else** **if** (appChoice == 2) {

*jobApp* = **new** TECH();

} **else** **if** (appChoice == 3) {

*jobApp* = **new** PRODUCT();

}

System.***out***.println("\nPlease enter your marks:");

**int** appMarks = *appInput*.nextInt();

*appInput*.nextLine();

**try** {

*checkMarks*(appMarks);

*jobApp*.hireEmployee();

*jobApp*.showDepartment();

} **catch**(MarksException ex1) {

System.***out***.println(ex1);

}

}

# }

# HrTeam Interface:

**public** **interface** HrTeam {

**public** **void** showDepartment ();

**public** **void** hireEmployee();

**public** **void** checkMarks();

}

# HR Class:

**public** **class** HR **implements** HrTeam {

String name = "Human Resources";

@Override

**public** **void** showDepartment() {

System.***out***.println("\nDepartment: " + name);

}

@Override

**public** **void** hireEmployee() {

System.***out***.println("\nYour application has been successful. ");

System.***out***.println("\nWe will contact you for the next stage of our recruitment process. ");

}

@Override

**public** **void** checkMarks() {

// **TODO** Auto-generated method stub

}

}

# PRODUCT Class:

**public** **class** PRODUCT **implements** HrTeam {

String name = "Product Development";

@Override

**public** **void** showDepartment() {

System.***out***.println("\nDepartment: " + name);

}

@Override

**public** **void** hireEmployee() {

System.***out***.println("\nYour application has been successful. ");

System.***out***.println("\nWe will contact you for the next stage of our recruitment process. ");

}

@Override

**public** **void** checkMarks() {

// **TODO** Auto-generated method stub

}

}

# TECH Class:

**public** **class** TECH **implements** HrTeam {

String name = "Technology R & D";

@Override

**public** **void** showDepartment() {

System.***out***.println("\nDepartment: " + name);

}

@Override

**public** **void** hireEmployee() {

System.***out***.println("\nYour application has been successful. ");

System.***out***.println("\nWe will contact you for the next stage of our recruitment process. ");

}

@Override

**public** **void** checkMarks() {

// **TODO** Auto-generated method stub

}

}

# Marks Exception:

**class** MarksException **extends** Exception {

**int** marks;

**public** MarksException (**int** x) {

marks = x;

}

**public** String toString() {

**return** "\nSorry, your marks of " + marks + " do not meet our qualifying standards.";

}

}

# Output for Low Marks:

Which department would you like to apply for?

1. HR

2. Technology

3. Product

1

Please enter your marks:

66

Sorry, your marks of 66 do not meet our qualifying standards.

# Output for Pass Marks:

Which department would you like to apply for?

1. HR

2. Technology

3. Product

2

Please enter your marks:

72

Your marks are sufficient for this application.

Your application has been successful.

We will contact you for the next stage of our recruitment process.

Department: Technology R & D