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Assignment : A program that ensures student age and department validation using package and module in Java.

Program :

Step-1: Constructing module-info Java class.

```
module ageDeptValidation.module {
    exports com.university.admission;
}
```

Step-2: Constructing Invalid Age Exception Java class.

```
package com.university.admission;
public class InvalidAgeException extends Exception {
```

```java
public Invalid Age Exception (String message) {

    super(message);

    }

}
```

Step-3 : Constructing Invalid Department Exception class.

```java
package com.university.admission;

public class Invalid Department Exception
    extends Exception {

    public Invalid Department Exception (String
        message) {

        super(message);

    }

}
```

Step-4 : Constructing main age Dept Validation java class.

```java
package com.university.admission;

import java.util.*;

public class ageDeptvalidation {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        while (true) {

            System.out.println("Do you want to
            start validation? (YES/NO): ");

            String choice = sc.nextLine();

            if (choice.equalsIgnoreCase("NO")) {

                System.out.println("Program
                    ended.");

                break;
            }

            System.out.println("Enter age: ");

            int age = sc.nextInt();
```

```java
System.out.print("Enter department:");
String department = sc.nextLine();

boolean hasError = false;

try {
    if (age < 18) {
        throw new com.university.admission.
        InvalidAgeException("Invalid age:
                Not eligible for university.");

    }
}
catch(com.university.admission.InvalidAge
    Exception e) {

        System.out.println("Caught Exception: " +
                e.getMessage());

        hasError = true;
```

```java
try {
    if (! department.equalsIgnoreCase("ICT"))
    {

        throw new com.university.admission.
            InvalidDepartmentException("Invalid
            department: Only ICT is allowed.");
    }
}

catch (com.university.admission.Invalid
    DepartmentException e) {

    System.out.println("Caught Exception: "+
        e.getMessage());

    hasError=true;
}

if (hasError==false) {

    System.out.println("valid
        age: "+age);
```

```
System.out.println("Valid department: "+
                    department);
}

System.out.println();
}
}
}
```

Output:

Do you want to start validation(YES/NO): YES

Enter age: 19

Enter department: ICT

valid age: 19

valid department: ICT

Do you want to start validation? (YES/NO): NO

Program ended