

INPUT/OUTPUT AND ERROR HANDLING

EC 5080

SOFTWARE CONSTRUCTION

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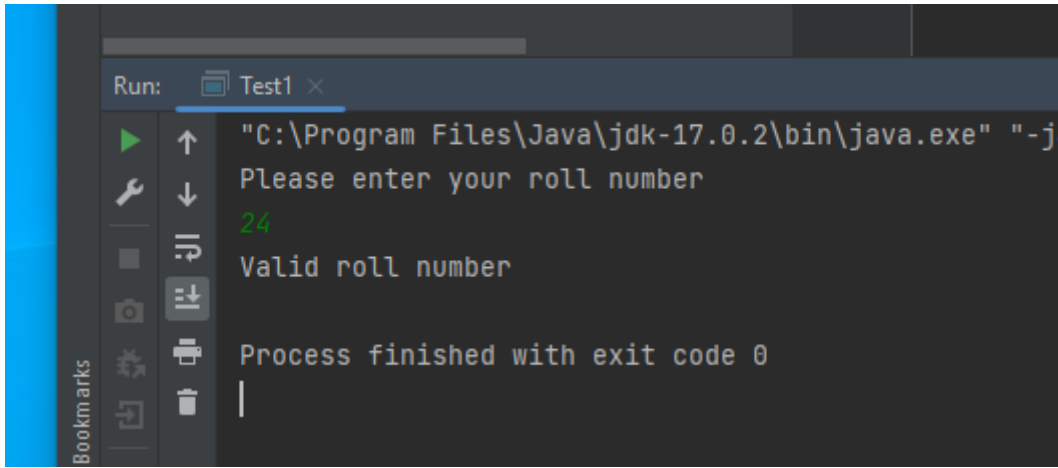
SEMESTER 05

16 SEPTEMBER 2022

QUESTION 01

PART 02

Test1

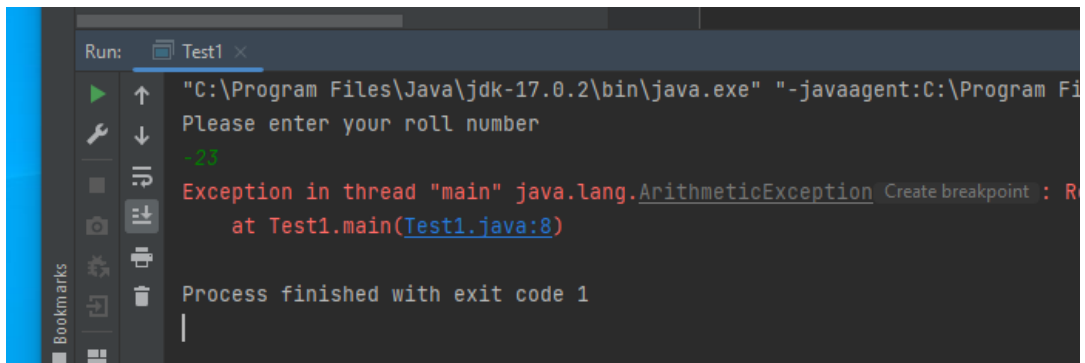


The screenshot shows a Java IDE's console window for a test named 'Test1'. The console output is as follows:

```
Run: Test1 x
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-j
Please enter your roll number
24
Valid roll number
Process finished with exit code 0
```

The left sidebar of the IDE shows a 'Bookmarks' panel with several icons.

FIGURE 01 - OUTPUT



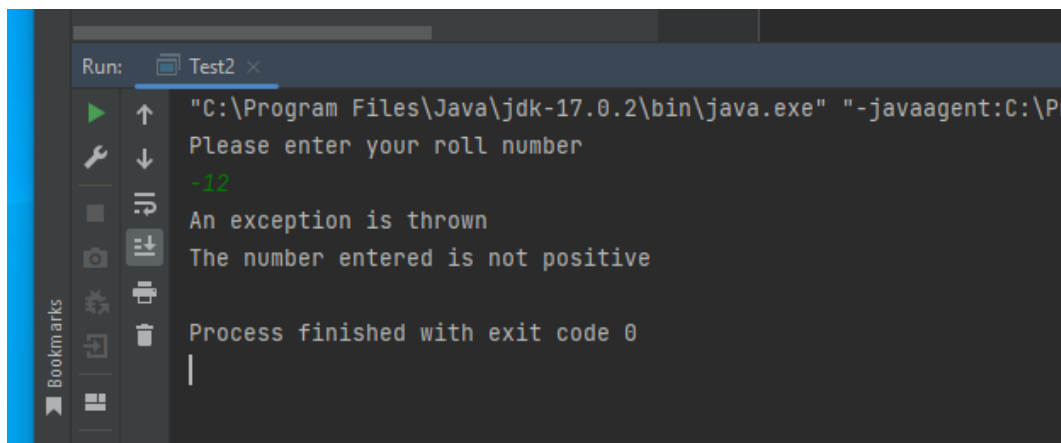
The screenshot shows a Java IDE's console window for a test named 'Test1'. The console output is as follows:

```
Run: Test1 x
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Fi
Please enter your roll number
-23
Exception in thread "main" java.lang.ArithmeticException Create breakpoint : R
at Test1.main(Test1.java:8)
Process finished with exit code 1
```

The left sidebar of the IDE shows a 'Bookmarks' panel with several icons.

FIGURE 02 – OUTPUT

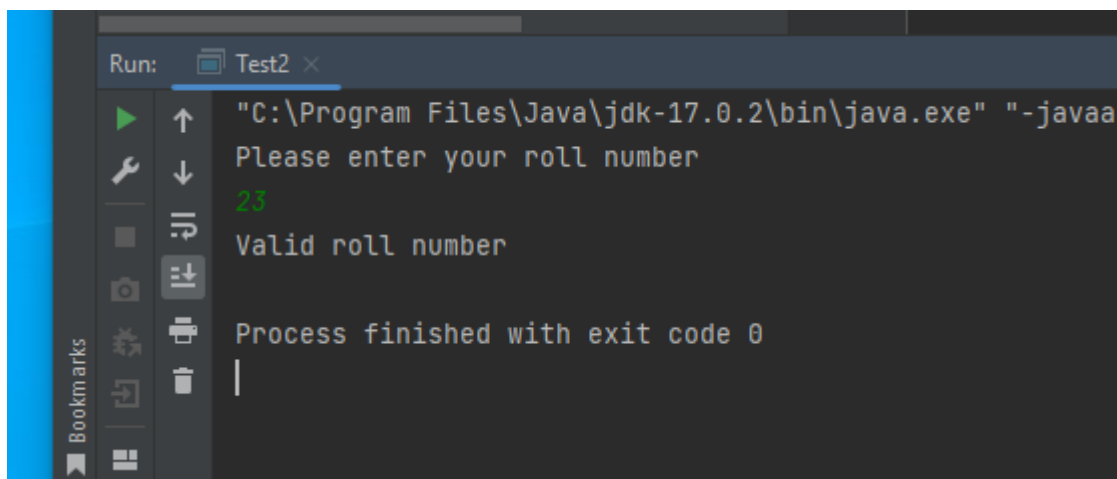
Test2



The screenshot shows the Run console of an IDE with a tab labeled 'Test2'. The console output is as follows:

```
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\P  
Please enter your roll number  
-12  
An exception is thrown  
The number entered is not positive  
  
Process finished with exit code 0  
|
```

FIGURE 03 – OUTPUT

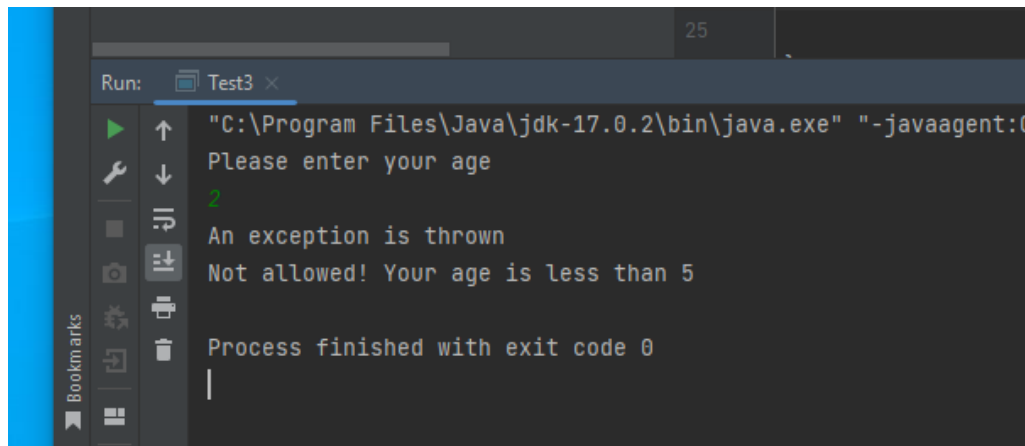


The screenshot shows the Run console of an IDE with a tab labeled 'Test2'. The console output is as follows:

```
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaa  
Please enter your roll number  
23  
Valid roll number  
  
Process finished with exit code 0  
|
```

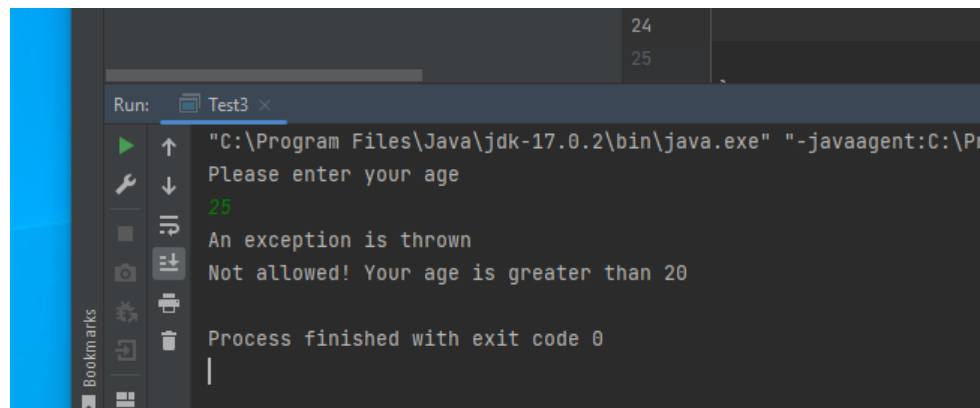
FIGURE 04 – OUTPUT

Test3



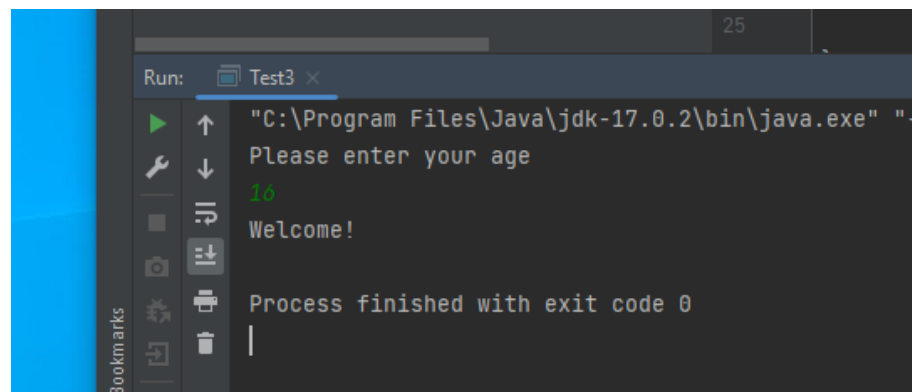
```
Run: Test3 x
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\Java\jdk-17.0.2\bin\javaagent.jar"
Please enter your age
2
An exception is thrown
Not allowed! Your age is less than 5
Process finished with exit code 0
```

FIGURE 05 – OUTPUT



```
Run: Test3 x
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\Java\jdk-17.0.2\bin\javaagent.jar"
Please enter your age
25
An exception is thrown
Not allowed! Your age is greater than 20
Process finished with exit code 0
```

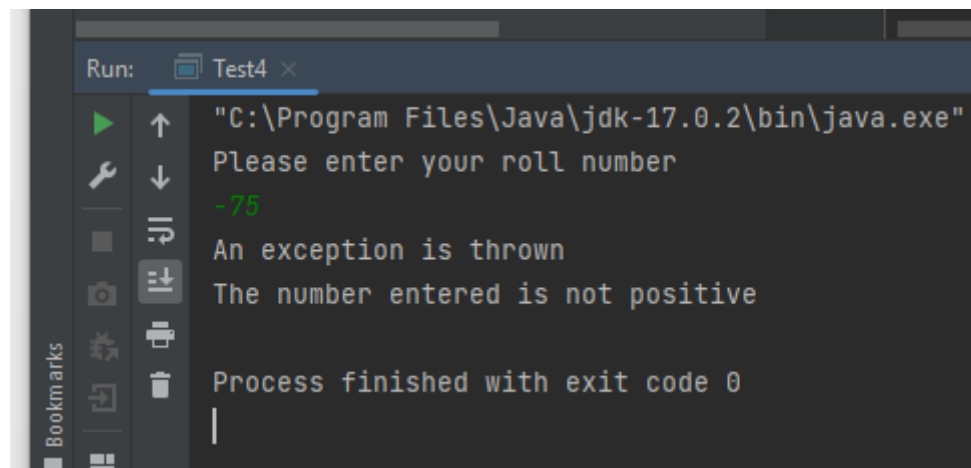
FIGURE 06 – OUTPUT



```
Run: Test3 x
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\Java\jdk-17.0.2\bin\javaagent.jar"
Please enter your age
16
Welcome!
Process finished with exit code 0
```

FIGURE 07 – OUTPUT

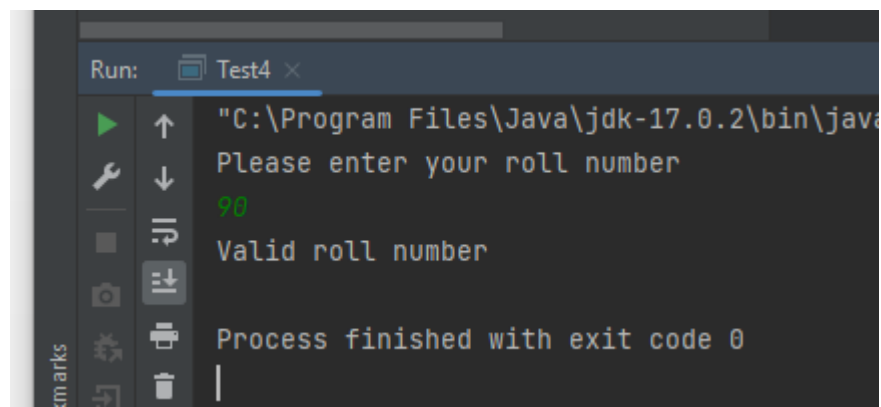
Test4



The screenshot shows the Run console of an IDE with a tab labeled 'Test4'. The output text is as follows:

```
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe"  
Please enter your roll number  
-75  
An exception is thrown  
The number entered is not positive  
  
Process finished with exit code 0  
|
```

FIGURE 08 – OUTPUT



The screenshot shows the Run console of an IDE with a tab labeled 'Test4'. The output text is as follows:

```
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe"  
Please enter your roll number  
90  
Valid roll number  
  
Process finished with exit code 0  
|
```

FIGURE 09 – OUTPUT

Test5

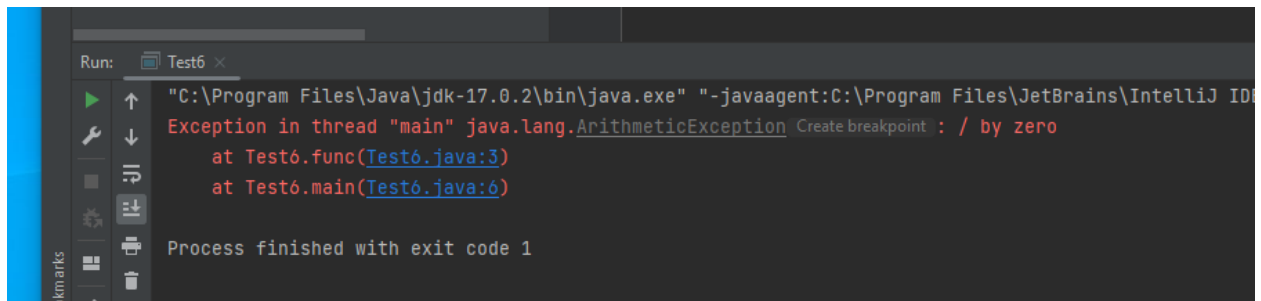


The screenshot shows the Run console for a test named 'Test5'. The command executed is `"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA\bin\idea_rt.jar=12738:C:\Program Files\Java\jdk-17.0.2\bin" -Didea.config.path=C:\Program Files\JetBrains\IntelliJ IDEA\conf -Didea.home.path=C:\Program Files\JetBrains\IntelliJ IDEA\bin -Dfile.encoding=UTF-8`. The output shows an `Exception in thread "main" java.lang.ArithmeticException: / by zero` at `Test5.func(Test5.java:3)` and `Test5.main(Test5.java:7)`. The process finished with exit code 1.

```
Run: Test5 x
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA\bin\idea_rt.jar=12738:C:\Program Files\Java\jdk-17.0.2\bin" -Didea.config.path=C:\Program Files\JetBrains\IntelliJ IDEA\conf -Didea.home.path=C:\Program Files\JetBrains\IntelliJ IDEA\bin -Dfile.encoding=UTF-8
Exception in thread "main" java.lang.ArithmeticException: / by zero
    at Test5.func(Test5.java:3)
    at Test5.main(Test5.java:7)
Process finished with exit code 1
```

FIGURE 10 – OUTPUT

Test6



The screenshot shows the Run console for a test named 'Test6'. The command executed is `"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA\bin\idea_rt.jar=12738:C:\Program Files\Java\jdk-17.0.2\bin" -Didea.config.path=C:\Program Files\JetBrains\IntelliJ IDEA\conf -Didea.home.path=C:\Program Files\JetBrains\IntelliJ IDEA\bin -Dfile.encoding=UTF-8`. The output shows an `Exception in thread "main" java.lang.ArithmeticException: / by zero` at `Test6.func(Test6.java:3)` and `Test6.main(Test6.java:6)`. The process finished with exit code 1.

```
Run: Test6 x
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA\bin\idea_rt.jar=12738:C:\Program Files\Java\jdk-17.0.2\bin" -Didea.config.path=C:\Program Files\JetBrains\IntelliJ IDEA\conf -Didea.home.path=C:\Program Files\JetBrains\IntelliJ IDEA\bin -Dfile.encoding=UTF-8
Exception in thread "main" java.lang.ArithmeticException: / by zero
    at Test6.func(Test6.java:3)
    at Test6.main(Test6.java:6)
Process finished with exit code 1
```

FIGURE 11 – OUTPUT

Test7

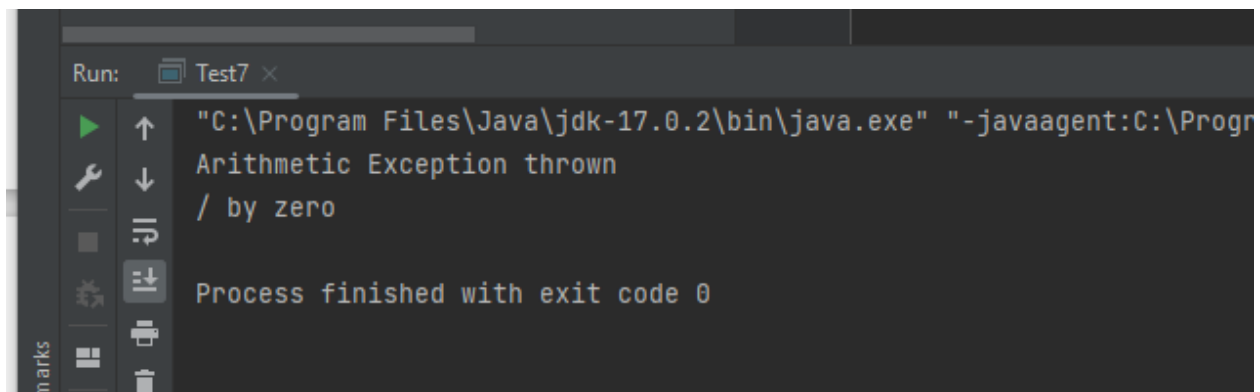


FIGURE 12 – OUTPUT

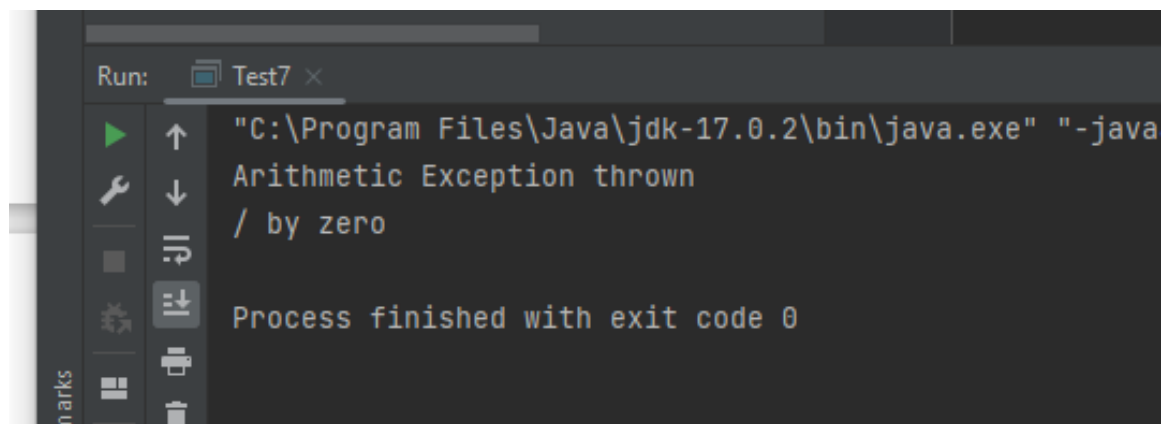


FIGURE 13 – OUTPUT