Q2] Working with java.lang.Byte
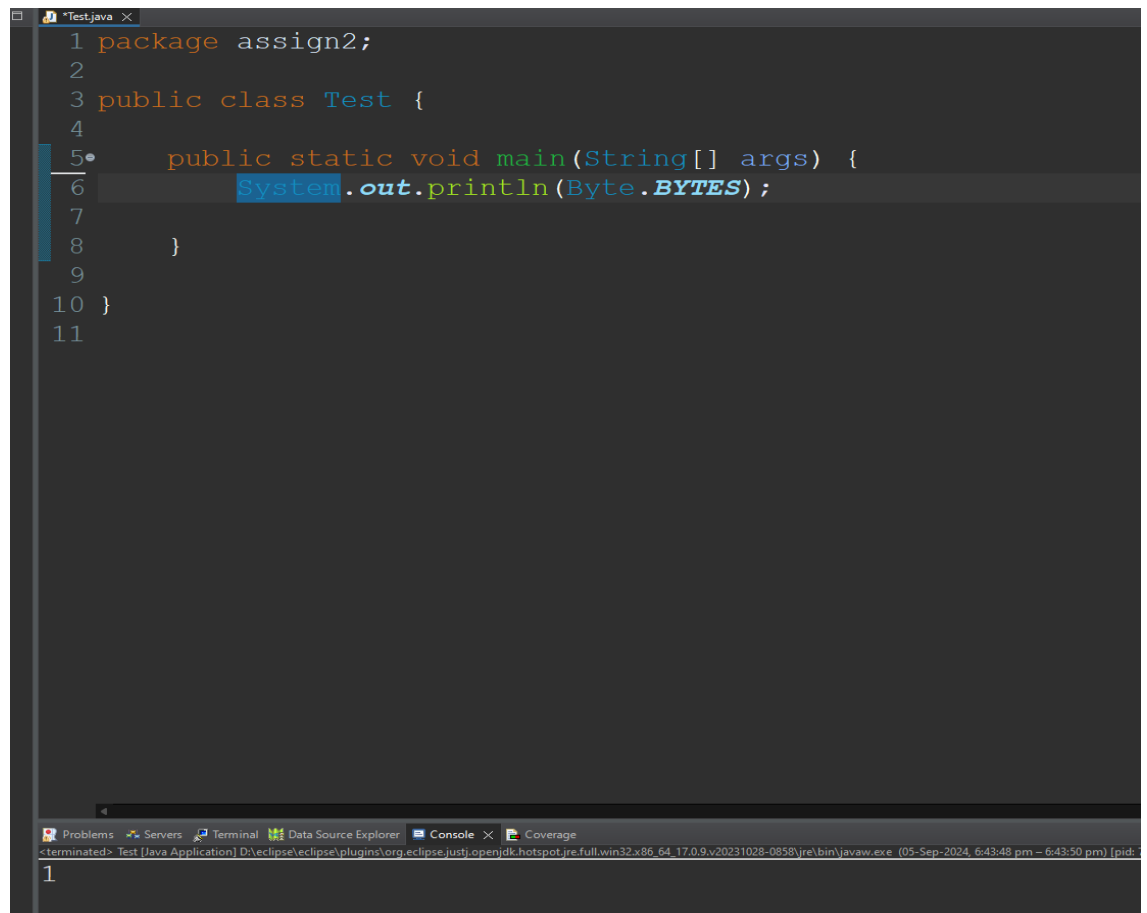
1) Explore the Java API documentation for java.lang.Byte and observe its modifiers and super types.

⇒ byte → byteValue()

byte → byteValue()

2) Write a program to test how many bytes are used to represent a byte value using the BYTES field. (Hint: Use Byte.BYTES).
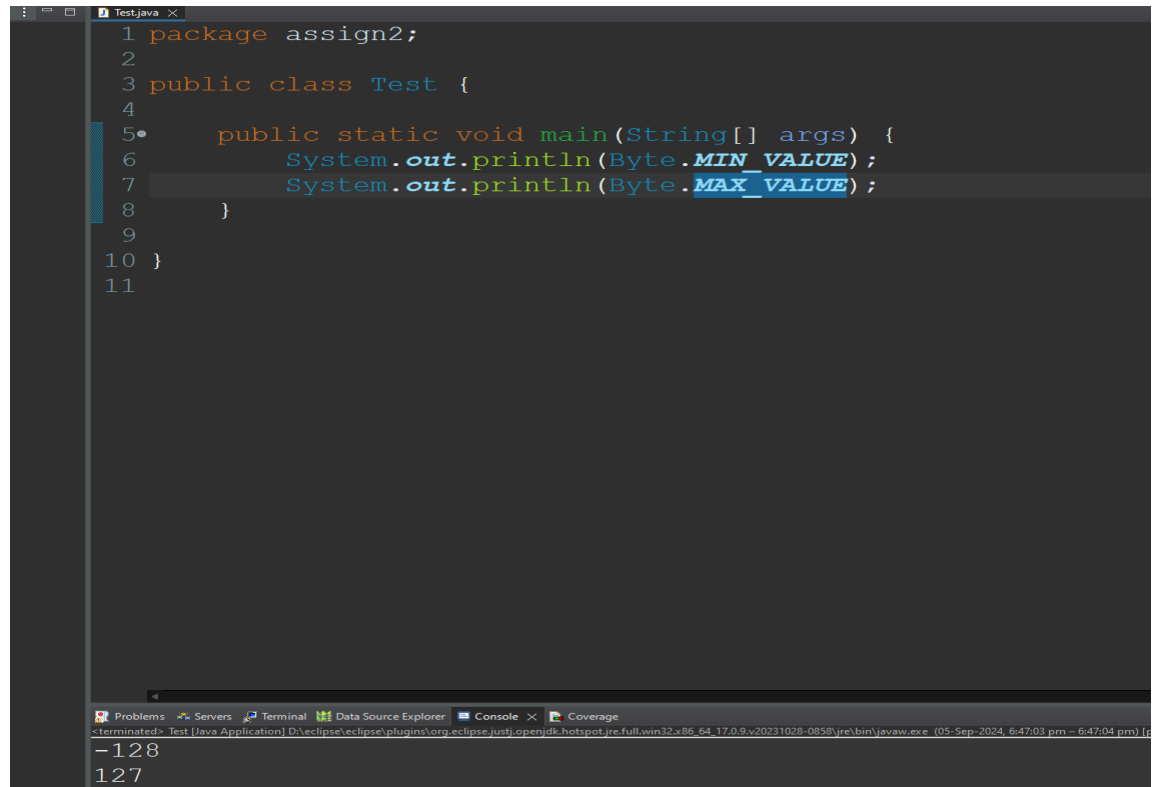
⇒

```java
package assign2;

public class Test {

    public static void main(String[] args) {
        System.out.println(Byte.BYTES);

    }

}
```

```
1
```

3) Write a program to find the minimum and maximum values of byte using the MIN_VALUE and MAX_VALUE fields. (Hint: Use Byte.MIN_VALUE and Byte.MAX_VALUE).

$\Rightarrow$

```java
package assign2;

public class Test {

    public static void main(String[] args) {
        System.out.println(Byte.MIN_VALUE);
        System.out.println(Byte.MAX_VALUE);
    }
}
```

```
Problems  Servers  Terminal  Data Source Explorer  Console ×  Coverage
<terminated> Test [Java Application] D:\eclipse\eclipse\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.9.v20231028-0858\jre\bin\javaw.exe  (05-Sep-2024, 6:47:03 pm – 6:47:04 pm) [p
-128
127
```

4) Declare a method-local variable number of type byte with some value and convert it to a String using the toString method. (Hint: Use Byte.toString(byte)).

⇒

```java
 1 package assign2;
 2
 3 public class Test {
 4
 5    public static void main(String[] args) {
 6        byte b = 12;
 7        System.out.println(b);
 8        String s = Byte.toString(b);
 9        System.out.println(s);
10    }
11
12 }
13
```

```
12
12
```

5) Declare a method-local variable strNumber of type String with some value and convert it to a byte value using the parseByte method. (Hint: Use Byte.parseByte(String)).

⇒

```java
 1 package assign2;
 2
 3 public class Test {
 4
 5    public static void main(String[] args) {
 6        String b = "120";
 7        System.out.println(b);
 8        byte s = Byte.parseByte(b);
 9        System.out.println(s);
10    }
11
12 }
13
```

```
120
120
```

6) Declare a method-local variable strNumber of type String with the value "Ab12Cd3" and attempt to convert it to a byte value. (Hint: parseByte method will throw a NumberFormatException).

$\Rightarrow$
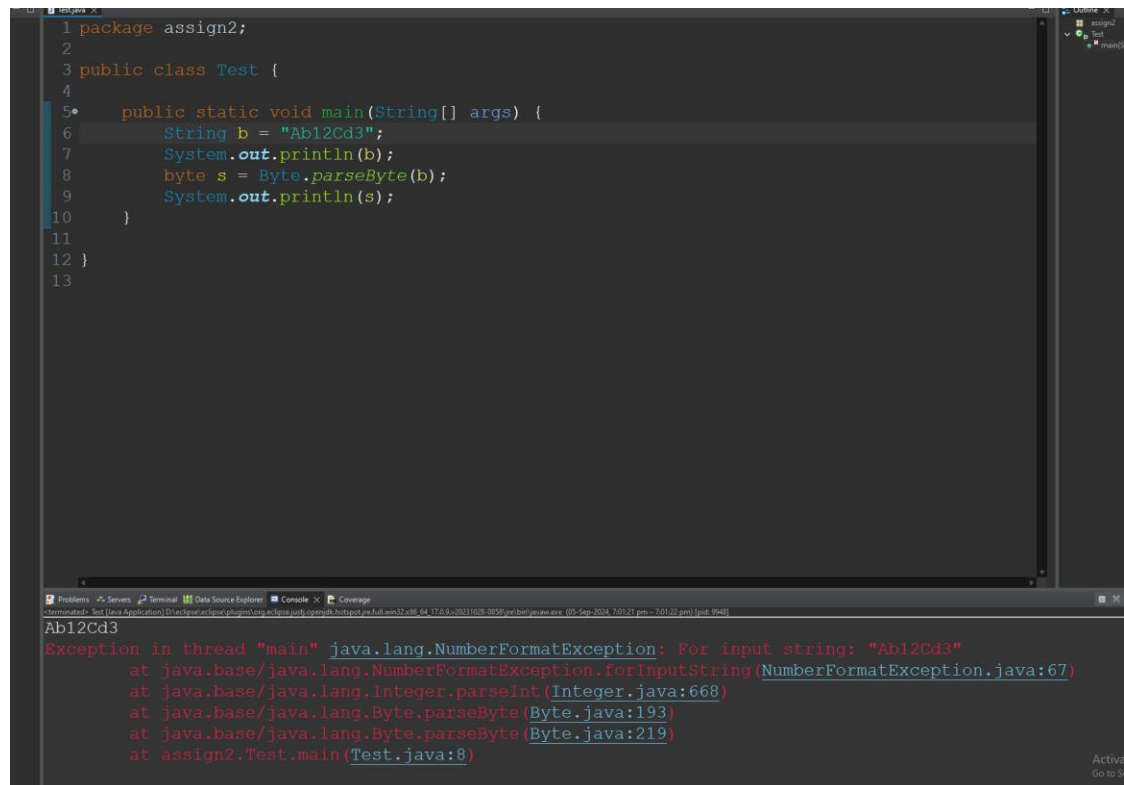


```
1 package assign2;
2
3 public class Test {
4
5•    public static void main(String[] args) {
6          String b = "Ab12Cd3";
7          System.out.println(b);
8          byte s = Byte.parseByte(b);
9          System.out.println(s);
10     }
11
12 }
13
```

```
Ab12Cd3
Exception in thread "main" java.lang.NumberFormatException: For input string: "Ab12Cd3"
    at java.base/java.lang.NumberFormatException.forInputString(NumberFormatException.java:67)
    at java.base/java.lang.Integer.parseInt(Integer.java:668)
    at java.base/java.lang.Byte.parseByte(Byte.java:193)
    at java.base/java.lang.Byte.parseByte(Byte.java:219)
    at assign2.Test.main(Test.java:8)
```

7) Declare a method-local variable number of type byte with some value and convert it to the corresponding wrapper class using Byte.valueOf(). (Hint: Use Byte.valueOf(byte)).

⇒

```java
1 package assign2;
2
3 public class Test {
4
5     public static void main(String[] args) {
6         byte b = 111;
7         System.out.println(b);
8         Byte s = Byte.valueOf(b);
9         System.out.println(s);
10     }
11
12 }
13
```

Problems Servers Terminal Data Source Explorer Console × Coverage
<terminated> Test [Java Application] D:\eclipse\eclipse\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.9.v20231028-0858\jre\bin\javaw.exe (05-Sep-2024, 7:05:30 pm – 7:05:32 pm) [pid: 13964]

```
111
111
```

8) Declare a method-local variable strNumber of type String
   with some byte value and convert it to the corresponding
   wrapper class using Byte.valueOf(). (Hint : Use
   Byte.valueOf(String)).

$\Rightarrow$

```
1 package assign2;
2
3 public class Test {
4
5   public static void main(String[] args) {
6       String b = "45";
7       System.out.println(b);
8       Byte s = Byte.valueOf(b);
9       System.out.println(s);
10  }
11
12 }
13
```

```
Problems  Servers  Terminal  Data Source Explorer  Console ×  Coverage
<terminated> Test [Java Application] D:\eclipse\eclipse\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.9.v20231028-0858\jre\bin\javaw.exe  (05-Sep-2024, 7:08:27 pm – 7:08:28 pm) [pid: 16876]
45
45
```

9) Experiment with converting a byte value into other primitive types or vice versa and observe the results.

$\Rightarrow$

```
1 package assign2;
2
3 public class Test {
4
5   public static void main(String[] args) {
6       int b = 10;
7       System.out.println(b);
8       byte s = (byte)b;
9       System.out.println(s);
10  }
11
12 }
13
```

```
Problems   Servers  Terminal  Data Source Explorer  Console ×  Coverage
<terminated> Test [Java Application] D:\eclipse\eclipse\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.9.v20231028-0858\jre\bin\javaw.exe  (05-Sep-202
10
10
```