

Lab-3

Write a class **Book** with

- Four **private** attributes *id*(int), *ISBN* (int), *Category* (char) and *name* (String)
- One private static attribute *lastID* which keeps track of the number of instances created and assigns the number to the *id* field in the constructor
- The class should have a method *getID()* and *setName(String)*
- The class should override *toString()* method
- The class should have one *dumpString()* method to create a String dump of the fields separated by \$\$ e.g., 1\$\$1234\$\$F\$\$Book1
- The class should have a static *createBook(String)* method to create and return a book instance created from a dumpString.

In the main method, do the following:

Create three books with values

1. b1(1234, F, Book1)
2. b2(2345, T, Book2)
3. b3(3456, C, Book3)
4. Print the books using `System.out.println()`. The output should look like this:

```
ID: 1
ISBN: 1234
CAT: F
Name: Book1
```

```
ID: 2
ISBN: 2345
CAT: T
Name: Book2
```

```
ID: 3
ISBN: 3456
CAT: C
Name: Book3
```

5. Now create a dumpString of b1 and print it
6. Then create a new Book instance using this dumpString, and print this. The output should look like this:

```
1$$1234$$F$$Book1$$
```

```
ID: 4
ISBN: 1234
CAT: F
Name: Book1
```