LAB05 – CONSTRUCTORS & ARRAYS

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CONSTRUCTOR

- What is a constructor?
- A constructor is a special method called when the object is instantiated.
- How to create a constructor?
- Similar with a method, but it must have class's name.
- When the constructor is called?
- When using the ***"new"*** keyword.
- e.g Object obj = **new** Object();

CONSTRUCTOR

Overriding the default constructor

```
public class Book {
    public Book(){
        System.out.println("new Book object");
    }
}
```

new Book();

Output: new Book Object

CONSTRUCTOR

```
public class Book {
    public String name;
    public Book(String name) {
        this.name = name;
    }
}
```

Book book = new Book(“Pride & Justice”);
System.out.println(book.name);

Output: Pride & Justice

CONSTRUCTOR

- How many constructors can we have?
- As many as we want, but only if they arguments are different.
- Will the default constructor remain?
- If we declare one constructor, we automatically override the default one.
- What does *"this"* keyword mean?
- "*this*" keyword means we refer to the Class variable not the one from the methods argument

ARRAY

In C

- int books_id[100]
- Size needed, unless we used malloc() or calloc()
- book_id[i] -> to modify
- for(int i=0; i<100; ++i){
  book_id[i] = 10;
  }
- Problem if the number "100" changes
- Hard to find a particular id

In Java

- ArrayList<Book> books = new ArrayList<>();
- Don't need to know the final size
- books.get(i) -> to modify
- for(Book book: books){
  book.setId(10);
  }
- Easy to add a new item: books.add(new Book())
- Easy to find the size: books.size()

QUESTIONS