Objective:
- Introduction to Generics
- Defining Generic Classes

Tasks:

1. Implement the following UML class diagrams ⇒ **Book**, **Product,** and **GenericStack** class.

Book
- title : String   - author : String
+ Book(tilte : String, author : String)   + getTitle() : String   + setTitle(title : String) : void   + getAuthor() : String   + setAuthor(author : String) : void   + toString() : String

Product
- name : String   - id : int   - price: int
+ Product(name : String, id : int, price : int)   + getName() : String   + setName(name : String) : void   + getId() : int   + setId(id : int) : void   + getPrice() : int   + setPrice(price : int) : void   + toString() : String

GenericStack<E>

- list : ArrayList<E>

+ getSize() : int
+ peek() : E
+ pop() : E
+ push(o : E) : void
+ isEmpty() : boolean
+ toString() : String

ArrayList: An array list to store elements.

getSize(): Returns the number of elements in stack.
peek(): Returns the top element in the stack.
pop(): Returns and removes the top element in the stack.
push(): Adds a new element to the top of the stack.
isEmpty(): Returns true if the stack is empty.

2. Now, write a **Main** class that contains the main method. You need to create some **Book** and **Product** objects and two stacks called **bookStack** and **productStack** respectively using the **GenericStack<E>** class. The stack named **bookStack** contains **Book** objects and the stack named **productStack** contains **Product** objects. Finally, call the **toString()** method of the **GenericStack** class to display the every element information of the two stacks.