How to read a character from command line Argument :

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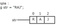
* If we want to read a character then String class has provided a predefined **non static method called charAt(int indexPosition), by using this method we can fetch a character from the given String based on the index position.**

* As we know, String is a collection of character. It can accept any character, number OR special symol. **Internally a String is charcater array.**

Example :
String str = "RAJ";



public **char** charAt(int indexPosition)

Example :

```
String gen = "Male";
char ch =  gen.charAt(0);
IO.println(ch);  //M
```

Gender.java

```
//Read a gender by using command line argument
void main(String [] args)
{
  char ch = args[0].charAt(0);
  IO.println("Your gender is :"+ch);
}
```

How to execute command line argument program using editplus :

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1) Click on Tools
2) Configure user tools
3) Add tool -> program
4) Menu text -> Command with Argument
5) Select the command browse (...) button -> select java from bin folder
6) Argument -> file name without extension   Prompt for Arguments
7) Initial Directory -> file directory -> apply -> OK (control + 3)

How to find out the length of an array :

* In Java, Whenever we create an array object then **automatically** we are getting a **length property to count the number of elements available in the array.**

* Once we create array object then automatically **length will be created** and after that the length will be **fixed** that means we cannot **increase OR decrease** the length of the array.

ArrayLength.java

```
//Finding the length of an array

void main(String [] args)
{
  String []cities = {"HYD", "BGLR", "BBSR", "PUNE", "VIZAG"};
  IO.println("The length of the array is :"+cities.length);   //5

  IO.println("........................");

  Object []arr = {12, 23.90, 'A', "Java", null, new String("NIT")};
  IO.println("The length of the array is :"+arr.length);  //6

}
```

WAP in java using command line argument based on the following criteria :

1) If no value is passed through command line argument then It should print : "No Value is given"

2) If we are passing only one value then It should print the "cube of the number"

3) If we are passing two values then It should print the "Sum of the number"

```
void main(String [] args)
{
 if(args.length == 0)
 {
     IO.println("No value is given");
 }
 else if(args.length ==1)
 {
     int num = Integer.parseInt(args[0]);
     IO.println("Cube of "+num+ " is :"+(num*num*num));

 }
 else if(args.length==2)
 {
   int num1 = Integer.parseInt(args[0]);
   int num2 = Integer.parseInt(args[1]);
     IO.println("Sum of "+num1+" and "+num2+" is :"+(num1+num2));
 }

}
```

Limitation of Commad line argument :

As we know by using Command Line Argument, we can pass some value at runtime, these values are stored in String array variable and then only the execution of the program will be started.
The basic limitation of Command line Argument is, we can't ask to enter the value from our end user as shown in the Program.

```
//Reading a character using command line argument

void main(String [] args)
{
  IO.println("Enter your Gender [M/F] :");
  char gender = args[0].charAt(0);
  IO.println("Your Gender is :"+gender);
}
```

How to read the data from Client with user friendly message:

* If we want read the clinet data with user-friendly message then we can use anyone of the following given techniques :

1) By using DataInputStream class (java.io)
2) By using BufferedReader class (java.io)
3) By using Console class (java.io) [Used to read password]
4) By using System.in.read() method [java.lang]
5) By using Scanner class [java.util]
6) By using IO class [java.lang]

Reading the Client Data by using IO class :

* As we know IO is predefined class available in java.lang package.
* It has provided the following two static methods to read the clinet data

1) public static **String readln() : Used to read the data in String format. The return type of this method is String.**

2) public static **String readln(String prompt)** : It is also used to read the client data in String format but here we can also ask for user input by using the same method

WAP to read your name by using IO class :

```
//Read the name by using IO class

void main()
{
  IO.print("Enter your Name :");
  String name = IO.readln();
  IO.println("Your Name is :"+name);
}
```

WAP to read your age from the keyboard :

```
//Read the name by using IO class

void main()
{
  IO.print("Enter your Age :");
  String ag = IO.readln();
  IO.println("Your Age is :"+ag);

  int age = Integer.parseInt(ag);

  if(age>18)
  {
      IO.println("You can go for a movie");
  }
  else
     {
       IO.println("Invalid Age for a movie");
     }
}
```

```
//Read the gender by using IO class

void main()
{
 char ch = IO.readln("Enter your gender :").charAt(0);
 IO.println("Your Gender is :"+ch);
}

//Read the boolean value by using IO class

void main()
{
 IO.print("Enter boolean value [true/false] :");
 boolean isValid = Boolean.parseBoolean(IO.readln());
 IO.println("Is it valid :"+isValid);
}
```