Boolean

- **Boolean :**
  - This data type can either be true, false or null.

```
1  boolean flag = true;
2  System.debug(' Value of flag is : '+flag);
```

Output: Value of flag is true

String

- **String :**
  - String is any set of characters within single quotes. It does not have any limit for the number of characters.

```
1  String name = 'Alex';
2  System.debug('Name of a person is ' + name);
```

Output: Name of a person is Alex

(+) Concat vs addition

- Strings can contain just numbers as well
- When we are using + sign we should pay attention to:
- String + integer (double, long etc.) → will result in String

```
integer a = 10;
integer b = 20;
String c = '20';

system.debug(a+b);
System.debug(a+c);
```

Output: 30

Output: 1020

Date

- **Date:**
  - This variable type indicates a date. This can only store the date and not the time.

```
1  Date todayDate = date.today();
2  System.debug('Date of today is '+todayDate);
```

Output: Date of today is 2022-03

  - We can use newInstance() method to create a custom date

Enter Apex Code

```
1  Date someDay = Date.newInstance(2020, 1, 15);
2  System.debug(someday);
```

Execution Log

Timestamp	Event	Details
23:31:40:004	USER_DEBUG	[2]|DEBUG|2020-01-15 00:00:00

DateTime

- **DateTime:**
  - This datatype is used to indicate date as well as time.

```
DateTime currentDateTime = DateTime.now();
String dateTimeStr = currentDateTime.format('yyyy/MM/dd hh:mm:ss');
System.debug('current DateTime is '+ dateTimeStr);
```

Output: current DateTime is 2022/03/26 04:06:26

  - We can use newInstance() method to create a custom date time

Enter Apex Code

```
1  Datetime someDay = DateTime.newInstance(2020, 1, 15, 13, 50, 39);
2  System.debug(someday);
```

Execution Log

Timestamp	Event	Details
23:34:59:002	USER_DEBUG	[2]|DEBUG|2020-01-15 21:50:39

Assignment

- Write a program in Apex, with three variables - name, sport, music. Provide your name in the name variable, provide true and false to sport and music as per your choice and print the following.

  Hello Apex, My name is <YOUR_NAME>
  I love Sport - <TRUE/FALSE>
  I love Music - <TRUE/FALSE>

- Write a program in Apex, with two variables to store following date and following date & time respectively and print the following.

  Appointment date: 2022-11-14
  Entrance to building date and time: 2022-11-14 12:40:30

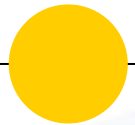
ID

- **ID**
  - **It is Primitive:** ID is the auto-generated datatype in Apex which can not be changed.
    - `ID alexId = '02540000012M3PHAZ4';`
  - If you set ID to a 15-character value, Apex converts the value to its 18-character representation. All invalid ID values are rejected with a runtime exception (error).
  - We can use ID to store RecordId or a lookup field (relation of object to another object) of object in the logic.

Blob

- **Blob**
  - **It is Primitive**
  - A collection of binary data stored as an object.
  - This will be used when we want to store the attachment in salesforce into a variable.
  - This data type converts the attachments into a single object

String Methods



String Methods :

- **What is Apex String Class in Salesforce?**
  - String Class is basically a class that consists of various Apex String Methods.
  - These particular String methods allows developers to manipulate and perform multiple operations on different strings.

  - **Capitalize:**
    - capitalize() returns the string with its first letter capitalized.

```
String message = 'hello world';
String newMessage = message.capitalize();
System.debug(newMessage);
```

Output: Hello world

String Methods

- **isAllUpperCase :**
  - This method returns **true** if all the characters of given string is in UpperCase. Otherwise, it returns false.

```
String message = 'HELLO';
Boolean result = message.isAllUpperCase();
System.debug(result);
```

Output: true

- **isAllLowerCase :**
  - This method returns **true** if all the characters of given string is in LowerCase. Otherwise, it returns false.

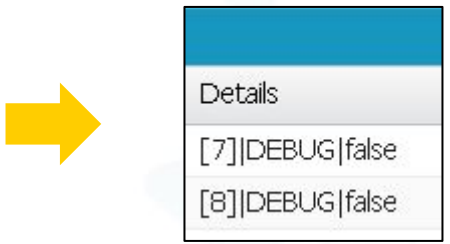
```
String message = 'hello';
Boolean result = message.isAllLowerCase();
System.debug(result);
```

Output: true

String Methods

- **isAllUpperCase** and **isAllLowerCase**
  - Spaces aren't alphabets and hence they can't be tested for uppercase or lowercase.
  - Hence if we are using these methods with a sentence, we will not get the result.
  - So these methods works best with words and not sentences.

```
1  String text1 = 'welcome to yoll academy';
2  String text2 = 'WELCOME TO YOLL ACADEMY';
3
4  Boolean result1 = text1.isAllLowerCase();
5  Boolean result2 = text2.isAllUpperCase();
6
7  System.debug(result1);
8  System.debug(result2);
```



String Methods

- **contains:**
  - The contains() method will return the value True if given substring is part of the main string in exact same case.

```
String message = 'Apex';
String newMessage = 'Salesforce is using Apex as a programing language.';
Boolean result = newMessage.contains(message);
System.debug(result);
```

Output: true

- **equals:**
  - If the provided string and the string passed in the method contain the same sequence of characters and are not null, this method will return true. *(case also must match)*

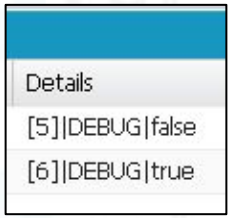
```
String message = 'hello',newMessage = 'hello';
Boolean result = message.equals(newMessage);
System.debug(result);
```

Output: true

String Methods

- **containsIgnoreCase:**
  - This method returns true if given substring is part of the main string.

```
String message = 'APEX';
String text = 'Salesforce is using Apex as a programming language.';
Boolean result1 = text.contains(message);
Boolean result2 = text.containsIgnoreCase(message);
System.debug(result1);
System.debug(result2);
```



- **equalsIgnoreCase :**
  - This method returns true if both String have same sequence of characters.

```
String message = 'hello',newMessage = 'heLLo';
Boolean result = message.equalsIgnoreCase(newMessage);
System.debug(result);
```

Output: true

String Methods

- **indexOf :**
  - Returns the index of the first occurrence of the specified substring. If the substring does not occur, this method returns -1. Index numbers start from 0

```
String message = 'Salesforce';
String newMessage = 'f';
Integer result = message.indexOf(newMessage);
System.debug(result);
```

Output: 5

```
String text = 'Apex is a programming language. Apex is based on Java Syntax.';
Integer result = text.indexOf('Apex');
System.debug(result);
```

Output: 0

Assignment

- Write a program in Apex with three String variables ‘text1’ and ‘text2’ and ‘text3’.
- Assign ‘yoll’, ‘YOLL’, ‘YOLL ACADEMY’ to them and print the output as following -

Text 1 is in All Lowercase: <TRUE/FALSE>
Text 1 is in All Uppercase: <TRUE/FALSE>
Text 2 is in All Lowercase: <TRUE/FALSE>
Text 3is in All Uppercase: <TRUE/FALSE>

Assignment

- Write a program with three String variables with values:
  - ‘Salesforce use APEX as a Programming Language’,
  - ‘Salesforce’
  - and ‘Apex’ to them respectively,
- and print the output as following.

Text contains ‘Salesforce’: <TRUE/FALSE>
Text contains ‘Apex’: <TRUE/FALSE>