\*  **Date Assignment 12/Dec/2022**  \*

1. java.util.Date Packages class represents date and time in java.It provide constructors and methods to deal with date and time in java.

2**. Date()** : - Creates a date object representing current date and time.

3. **LocalDate()** : - A date without  time zone calendar  system.

an immutable date-time object that represents a date. (Year Month Day)

LocalDate()   ldate = LocalDate.Parse(Date);

4. **SimpleDateFormat** : - methods to format and parse date and time java

**\***This constructor may not support all locales. For full coverage, use the

methods in the DateFormat class. Allow to user defined method

Formatting(Date To Text ) And Parsing (Text To Date )

                                \*\*  **Date To String** \*\*

 Date date = **new** Date();

     SimpleDateFormat formatter = **new** SimpleDateFormat("dd/MM/yyyy");

     String strDate= formatter.format(date);

     System.out.println(strDate);

                                \*\* **String To Date** \*\*

    SimpleDateFormat formatter = **new** SimpleDateFormat("dd/MM/yyyy");

**try** {

          Date date = formatter.parse ("22/12/2022");

          System.out.println("Date is: "+date);

          } **catch** (Parse Exception e) {

           e.printStackTrace(); }

5. **DateFormat () : -** DateFormat Class is used For Date Formatting Dates.

**\*\* Date To String \*\***

//Initializing the date formatter

DateFormat Date = DateFormat.getDateInstance();

//Initializing Calender Object

Calendar cals = Calendar.getInstance();

//Displaying the actual date

System.out.println("The original Date: " + cals.getTime());

//Using format() method for conversion

String currentDate = Date.format(cals.getTime());

System.out.println("Formatted Date: " + currentDate);

6**. Date using Scanner Class.**

**\*\* Date To String \*\***

public class DateTask {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter date in format dd/MM/yyyy:");

        String dateToStr = sc.nextLine();

          DateTimeFormatter formatter = DateTimeFormatter.ofPattern("dd/MM/yyyy");

          LocalDate ldate = LocalDate.parse(dateToStr, formatter);

          SimpleDateFormat sdf = new SimpleDateFormat("dd/MM/yyyy L E");

          String Str = sdf.format(Date.from(ldate.atStartOfDay(ZoneId.systemDefault()).toInstant()));

          System.out.println(Str);

\*\* Output in String Format : -

Enter date in format dd/MM/yyyy:

13/12/2022

13/12/2022

7. String Using Scanner Class.

**\*\* String To Date \*\***

public class DateTask{

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter Date");

        String strTodate=sc.next();

        LocalDate ldate=LocalDate.parse(strTodate);

        SimpleDateFormat format=new SimpleDateFormat("dd/MM/yyyy");

        Date date = Date.from(ldate.atStartOfDay(ZoneId.systemDefault()).toInstant());

        String dateString=format.format(date);

        System.out.println(dateString);

        sc.close();

    }

}

\*\* **Output Print Only (yyyy-MM-dd) : -**

2022-12-13

13/12/2022

8. Chart DateFormatter.

|  |  |
| --- | --- |
| Symbol | Examples |
| U – year | year -2004 ; 04 |
| D- Day of year | number - 189 |
| M/L-month of year | Num/text- 07;Jul; |
| d- day of month | Num 10; |
| Y– week based year | Year -1996; 96; |
| w-week/week based | Year -27 |
| W-week of month | Num-4 |
| E-day of week | Text-T |
| F-week of month | Num-3 |
| a-am/pm of day | Text-PM |
| H-hour of day(0-23) | Num-0 |
| m-minute of hour | Num-30 |
| s-second of minute | Num-55 |
| S-fraction of second | Fraction-978 |
| V-time zone id | Asia/K; |
| z-time zone name | PST; |
| EEE | Text-mon |
| MM | 03 |
| MMM | Jan/Feb |
| MMMMM | March/April |
| yyyyy | 02021 |
| yy | 21; |
| h-clock(1-12) | 12 |
| K (0-11) | Num-10 |
| K (0-23) | Num-22 |

9. Chart SimpleDateFormat

|  |  |
| --- | --- |
| **Date and Time Pattern** | **Result** |
| "yyyy.MM.dd G 'at' HH:mm:ss z" | 2001.07.04 AD at 12:08:56 PDT |
| "EEE, MMM d, ''yy" | Wed, Jul 4, '01 |
| "h:mm a" | 12:08 PM |
| "hh 'o''clock' a, zzzz" | 12 o'clock PM, Pacific Daylight Time |
| "K:mm a, z" | 0:08 PM, PDT |
| "yyyyy.MMMMM.dd GGG hh:mm aaa" | 02001.July.04 AD 12:08 PM |
| "EEE, d MMM yyyy HH:mm:ss Z" | Wed, 4 Jul 2001 12:08:56 -0700 |
| "yyMMddHHmmssZ" | 010704120856-0700 |
| "yyyy-MM-dd'T'HH:mm:ss.SSSZ" | 2001-07-04T12:08:56.235-0700 |
| "yyyy-MM-dd'T'HH:mm:ss.SSSXXX" | 2001-07-04T12:08:56.235-07:00 |
| "YYYY-'W'ww-u" | 2001-W27-3 |