**Date Time and Duration of Execution:**

*// Using util.Date : getting current date and time* Date dt=**new** Date();  
 System.***out***.println(**"Using util.Date :"**+dt);  
  
*// Using SimpleDateFormat [NOTE use always MM for month]* SimpleDateFormat sdf=**new** SimpleDateFormat(**"dd-MM-yyyy : hh:mm:ss"**);  
 Date dt1=**new** Date();  
 System.***out***.println(**"Using SimpleDateFormat and util.Date :"**+sdf.format(dt1));  
  
*// Using Calender class* Calendar cal=Calendar.*getInstance*();  
 Date dt2=cal.getTime();  
 System.***out***.println(**"Using Calender : "**+dt2);  
  
*// Using Instant instance.* Instant inst=Instant.*now*();  
 System.***out***.println(**"Using Instant : "** + inst);  
  
*// Using LocalDateTime.* LocalDateTime ldt=LocalDateTime.*now*();  
 System.***out***.println(**"Using LocalDateTime :"**+ldt);  
  
*// Using LocalDate instance - getting date.* LocalDate ld=LocalDate.*now*();  
 System.***out***.println(**"Local Date :"**+ ld);  
  
*// using LocalTime instance - getting time.* LocalTime lt=LocalTime.*now*();  
 System.***out***.println(**"Local Time : "**+lt);  
  
*// Using ZonedDateTime object* ZonedDateTime zdt=ZonedDateTime.*now*();  
 System.***out***.println(**"Zoned Date Time object : "**+zdt);  
  
*// Using DateTimeFormatter* DateTimeFormatter f=DateTimeFormatter.***BASIC\_ISO\_DATE***;  
 String dt3=f.format(LocalDateTime.*now*());  
 System.***out***.println(**"Date Time Formatter :"**+ dt3);

**Comparing dates:**

Date.before() - - > dt1.before(dt2) returns value less than 0.

Date.after() - - > dt1.after(dt2) returns value more than 0.

Date.equals() - - > dt1.equals(dt2) returns value 0.

**(From Java 1.8)**

Date.isBefore() - - > dt1.isBefore(dt2) returns value less than 0.

Date.isAfter() - - > dt1.isAfter(dt2) returns value more than 0.

Date.isEqual() - - > dt1.equals(dt2) returns value 0

Date.compareTo() - - > dt1.compareTo(dt2) returns Boolean.

**Getting TimeStamp ( java.sql.TimeStamp):**

TimeStamp ts=new TimeStamp(System.currentTimeMillis());

System.out.println(ts);

**Duration of Execution:**

*// using the System.currentTimeMillis().* **long** start=System.*currentTimeMillis*();  
 Thread.*sleep*(2500);  
 **long** end=System.*currentTimeMillis*();  
 **long** dur=end-start;  
 System.***out***.println(**"Time took for execution :"** +dur);

*// using the System.nanoTime().* **long** start=System.*nanoTime*();  
 Thread.*sleep*(3000);  
 **long** end=System.*nanoTime*();  
 **long** dur=(end-start)/1000000000;  
 System.***out***.println(**"Time took for execution :"** +dur+ **" seconds"**);  
 *// or* **long** durSec= TimeUnit.***NANOSECONDS***.toSeconds(end-start);  
 System.***out***.println(**"Time took for execution in seconds :"**+durSec);

*// using the Instant Class now method.* Instant start=Instant.*now*();  
 Thread.*sleep*(4500);  
 Instant end=Instant.*now*();

System.***out***.println(**"Time took for execution : "**+ Duration.*between*(start,end));