Lecture 87 Date and Time API Indroduction Part-1:

Printing Current Data and time using Joda Time API:

**package** com.durgaSoft.section7.lecture87;

**import** java.time.LocalDate;

**import** java.time.LocalTime;

**public** **class** Example1 {

**public** **static** **void** main(String[] args) {

//To get current system date:

LocalDate date = LocalDate.*now*();

System.***out***.println(date);

//To get current time.

LocalTime time = LocalTime.*now*();

System.***out***.println(time);

}

}

Lecture 88:

To get day, month and year from LocalDate object:

**package** com.durgaSoft.section7.lecture88;

**import** java.time.LocalDate;

**public** **class** Example1 {

**public** **static** **void** main(String[] args) {

LocalDate date = LocalDate.*now*();

//default date format year-month-day

System.***out***.println("Default date "+date);

System.***out***.println();

**int** day = date.getDayOfMonth();

**int** month = date.getMonthValue();

**int** year = date.getYear();

System.***out***.println("Day is "+day);

System.***out***.println("Month is "+month);

System.***out***.println("Year is "+year);

System.***out***.println();

//Output must be in day-month-year

System.***out***.printf("Customised Date is %d-%d-%d", day,month,year);

}

}

To get Time:

**package** com.durgaSoft.section7.lecture88;

**import** java.time.LocalTime;

**public** **class** Example2 {

**public** **static** **void** main(String[] args) {

LocalTime time = LocalTime.*now*();

//output 11:07:26.920

System.***out***.println("Default time "+time);

System.***out***.println();

**int** hours = time.getHour();

**int** minutes = time.getMinute();

**int** seconds = time.getSecond();

**int** nano = time.getNano();

System.***out***.println("Hour "+hours);

System.***out***.println("Minutes "+minutes);

System.***out***.println("Seconds "+seconds);

System.***out***.println("Nano "+nano);

System.***out***.println();

//Output 11:7:26:920000000

System.***out***.printf("%d:%d:%d:%d",hours,minutes,seconds,nano);

}

}

To get Date and time:

**package** com.durgaSoft.section7.lecture89;

**import** java.time.LocalDateTime;

**public** **class** Example1 {

**public** **static** **void** main(String[] args) {

LocalDateTime dateTime = LocalDateTime.*now*();

System.***out***.println(dateTime);

**int** date = dateTime.getDayOfMonth();

**int** month = dateTime.getMonthValue();

**int** year = dateTime.getYear();

**int** hour = dateTime.getHour();

**int** minutes = dateTime.getMinute();

**int** seconds = dateTime.getSecond();

**int** nano = dateTime.getNano();

}

}

To generate Date and time from given input:

If we need to add or subtract days. The similar things are applicable for months and year.

**package** com.durgaSoft.section7.lecture89;

**import** java.time.LocalDateTime;

**public** **class** Example2 {

**public** **static** **void** main(String[] args) {

//How to represent 1995-May-28 and time is 12:45

LocalDateTime dateTime = LocalDateTime.*of*(1995, 05, 28, 12,45);

System.***out***.println(dateTime);

//Add Days

System.***out***.println(dateTime.plusDays(4));

//minus Days

System.***out***.println(dateTime.minusDays(2));

}

}

Lecture 90:

How to calculate Age:

**package** com.durgaSoft.section7.lecture90;

**import** java.time.LocalDate;

**import** java.time.Period;

**public** **class** Example1 {

**public** **static** **void** main(String[] args) {

LocalDate todaysDate = LocalDate.*now*();

LocalDate birdthDay = LocalDate.*of*(1984, 04, 24);

Period age = Period.*between*(birdthDay, todaysDate);

System.***out***.printf("Your age is %d years %d months %d days ", age.getYears(), age.getMonths(), age.getDays());

System.***out***.println();

}

}

To calculate if the year is leap year

**public** **class** Example2 {

**public** **static** **void** main(String[] args) {

**int** year =2001;

Year checkYear = Year.*of*(year);

**if**(checkYear.isLeap()) {

System.***out***.println("Its a leap year");

}**else**{

System.***out***.println("Not a leap year");

}

}

}

Lecture 91: Date and Time API: Introduction Zone id, Zone Date Time.

**package** com.durgaSoft.section7.lecture91;

**import** java.time.ZoneId;

**import** java.time.ZonedDateTime;

**import** java.util.Set;

**public** **class** Example1 {

**public** **static** **void** main(String[] args) {

ZoneId myZone = ZoneId.*systemDefault*();

System.***out***.println(myZone);

ZoneId laZone = ZoneId.*of*("America/Los\_Angeles");

ZonedDateTime laTime = ZonedDateTime.*now*(laZone);

System.***out***.println(laTime);

/\* To get the list of all time zone \*/

Set<String> zoneIds = ZoneId.*getAvailableZoneIds*();

**for** (String zone : zoneIds) {

System.***out***.println(zone);

}

}

}