

Java Date Time in Java 8	
java 1.0	java.util.Date;java.text.Format
java 1.2	java.util.Calendar
java 8	java.time.*
java 8 classes: LocalDate, LocalTime, LocalDateTime, Month (1-12), Period, Duration	

Creating Dates and Times	
of()	Overriden by LocalDate, LocalTime and LocalDateTime
LocalDate.of(y,M,d);	M: int or Month(1-12)
LocalTime.of(h,mi,s,ns)	ns: nano second
LocalDateTime.of(y,M,d,h,m,s,ns)	LocalDateTime.of(d,t)
now()	Overriden by LocalDate, LocalTime and LocalDateTime
parse(s,f)	Overriden by LocalDate, LocalTime and LocalDateTime
LocalDateTime.parse(s,f)	f must be DateTimeFormatter
LocalDate d= new LocalDate() //not compiled	
LocalDate d= LocalDate.of(2020,10,27); //not compile	

Manipulating Dates and Times	
plusYYY(int)	
minusYYY(int)	
return new immutable, original not changed, like new String()	
chain of method on date and time	
getXXX(); //XXX= DayOfWeek,DayOfYear, Month, Year	
dt1.isBefore(dt2)	
dt1.isAfter(dt2)	
YYY = Years / Months /Days/Hours/Minutes/Seconds/Nanos;	
Java 8 date & time are immutable, like String objects.	

Period and Duration	
java.time.Period; java.time.Duration;	
4 ways to create a period	
Period.ofXXX(int); //XXX=Years,Months,Days	
Period.of(int years,int months, int days);	
Period.between(d1,d2)	
Period.parse("P1Y2M3W4D");//same as Period.of(1, 2, 25)	
Modify period	
plusYYY(int); //YYY = Days Weeks Months Years	
minusYYY(int); //YYY = Days Weeks Months Years	
Use period	
dt.plus/minus(period);	
d.plus/minus(period);	
time.plus/minus(duration); //if input period, UnsupportedOperationException	
Chain of Periods method does not make sense	

Formatting	
2 methods to create a formatter	
DateTimeFormatter f=DateTimeFormatter.ofXXX(FormatStyle.SHORT MEDIUM LONG FULL);	
DateTimeFormatter f=DateTimeFormatter.ofPattern("yyyy-MMMM-dd hh:mm:ss");//M->1, MM->01, MMM->Jan, MMMM->January	
Standard formatter:	
DateTimeFormatter.ISO_LOCAL_DATE/TIME/DATETIME	
ISO_LOCAL_DATETIME: '2020-10-27T1:45:30'	
3 ways to use formatter	
f.format(date/time/datetime_obj);	
date/time/datetime_obj.format(f);	
LocalDate/Time/DateTime.parse(String s, DateTimeFormatter f);	
XXX = LocalizedDate, LocalizedTime,LocalizedDateTime	
date and time format legal for datatime object, datatime format not legal for date or time object	