

This tutorial shows you how to work with `java.util.Date` and `java.util.Calendar`.

1. Java Date Examples

Few examples to work with `Date` APIs.

Example 1.1 – Convert Date to String.

```
SimpleDateFormat sdf = new SimpleDateFormat("dd/M/yyyy");
String date = sdf.format(new Date());
System.out.println(date); //15/10/2013
```

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Example 1.2 – Convert String to Date.

```
SimpleDateFormat sdf = new SimpleDateFormat("dd-M-yyyy hh:mm:ss");
String dateInString = "31-08-1982 10:20:56";
Date date = sdf.parse(dateInString);
System.out.println(date); //Tue Aug 31 10:20:56 SGT 1982
```

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P.S Refer to this – [SimpleDateFormat JavaDoc](#) for detail date and time patterns.

Example 1.3 – Get current date time

```
SimpleDateFormat dateFormat = new SimpleDateFormat("yyyy/MM/dd HH:mm:ss");
Date date = new Date();
System.out.println(dateFormat.format(date)); //2013/10/15 16:16:39
```

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Example 1.4 – Convert Calendar to Date

```
Calendar calendar = Calendar.getInstance();
Date date = calendar.getTime();
```

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2. Java Calendar Examples

Few examples to work with `Calendar` APIs.

Example 2.1 – Get current date time

```
SimpleDateFormat sdf = new SimpleDateFormat("yyyy MMM dd HH:mm:ss");
Calendar calendar = new GregorianCalendar(2013,0,31);
System.out.println(sdf.format(calendar.getTime()));
```

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Output

```
2013 Jan 31 00:00:00
```

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Example 2.2 – Simple Calendar example

```
SimpleDateFormat sdf = new SimpleDateFormat("yyyy MMM dd HH:mm:ss");
Calendar calendar = new GregorianCalendar(2013,1,28,13,24,56);

int year      = calendar.get(Calendar.YEAR);
int month     = calendar.get(Calendar.MONTH); // Jan = 0, dec = 11
int dayOfMonth = calendar.get(Calendar.DAY_OF_MONTH);
int dayOfWeek  = calendar.get(Calendar.DAY_OF_WEEK);
int weekOfYear = calendar.get(Calendar.WEEK_OF_YEAR);
int weekOfMonth = calendar.get(Calendar.WEEK_OF_MONTH);

int hour      = calendar.get(Calendar.HOUR); // 12 hour clock
int hourOfDay = calendar.get(Calendar.HOUR_OF_DAY); // 24 hour clock
int minute    = calendar.get(Calendar.MINUTE);
int second    = calendar.get(Calendar.SECOND);
int millisecond = calendar.get(Calendar.MILLISECOND);

System.out.println(sdf.format(calendar.getTime()));

System.out.println("year \t\t: " + year);
System.out.println("month \t\t: " + month);
System.out.println("dayOfMonth \t: " + dayOfMonth);
System.out.println("dayOfWeek \t: " + dayOfWeek);
System.out.println("weekOfYear \t: " + weekOfYear);
System.out.println("weekOfMonth \t: " + weekOfMonth);

System.out.println("hour \t\t: " + hour);
System.out.println("hourOfDay \t: " + hourOfDay);
System.out.println("minute \t\t: " + minute);
System.out.println("second \t\t: " + second);
System.out.println("millisecond \t: " + millisecond);
```

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Output

```
2013 Feb 28 13:24:56
year      : 2013
month     : 1
dayOfMonth : 28
dayOfWeek  : 5
weekOfYear : 9
weekOfMonth : 5
hour      : 1
hourOfDay  : 13
minute     : 24
second     : 56
millisecond : 0
```

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Example 2.3 – Set a date manually.

```
SimpleDateFormat sdf = new SimpleDateFormat("yyyy MMM dd HH:mm:ss");

Calendar calendar = new GregorianCalendar(2013,1,28,13,24,56);
System.out.println("#1. " + sdf.format(calendar.getTime()));

//update a date
calendar.set(Calendar.YEAR, 2014);
calendar.set(Calendar.MONTH, 11);
calendar.set(Calendar.MINUTE, 33);

System.out.println("#2. " + sdf.format(calendar.getTime()));
```

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Output

```
#1. 2013 Feb 28 13:24:56
#2. 2014 Dec 28 13:33:56
```

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Example 2.4– Add or subtract from a date.

```
SimpleDateFormat sdf = new SimpleDateFormat("yyyy MMM dd");

Calendar calendar = new GregorianCalendar(2013,10,28);
System.out.println("Date : " + sdf.format(calendar.getTime()));

//add one month
calendar.add(Calendar.MONTH, 1);
System.out.println("Date : " + sdf.format(calendar.getTime()));
```

```
//subtract 10 days  
calendar.add(Calendar.DAY_OF_MONTH, -10);  
System.out.println("Date : " + sdf.format(calendar.getTime()));
```

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Output

```
Date : 2013 Nov 28
```

```
Date : 2013 Dec 28
```

```
Date : 2013 Dec 18
```

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Example 2.5– Convert Date to Calendar.

```
SimpleDateFormat sdf = new SimpleDateFormat("dd-M-yyyy hh:mm:ss");  
String dateInString = "22-01-2015 10:20:56";  
Date date = sdf.parse(dateInString);
```

```
    Calendar calendar = Calendar.getInstance();  
calendar.setTime(date);
```