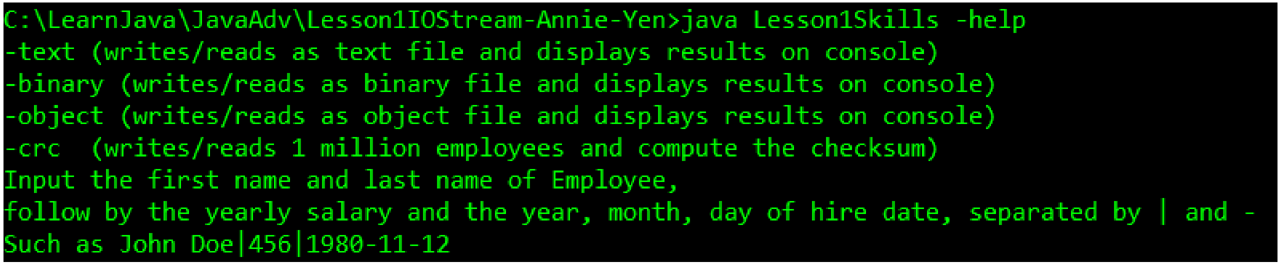
LessonIOStream-Annie-Yen.zip contains a jar file named **Lesson1Skills.jar**.

Unzip the zip file LessonIOStream.zip

Open Window’s command prompt and change directory to that folder containing Lesson1Skills.java.

Look into **-help** for inputting argument.

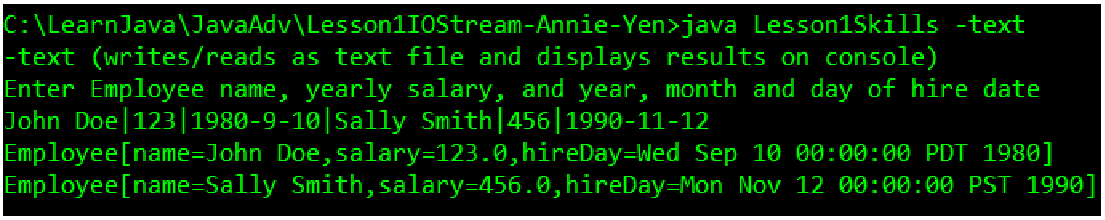


```
C:\LearnJava\JavaAdv\Lesson1IOStream-Annie-Yen>java Lesson1Skills -help
-text (writes/reads as text file and displays results on console)
-binary (writes/reads as binary file and displays results on console)
-object (writes/reads as object file and displays results on console)
-crc  (writes/reads 1 million employees and compute the checksum)
Input the first name and last name of Employee,
follow by the yearly salary and the year, month, day of hire date, separated by | and -
Such as John Doe|456|1980-11-12
```

```
java Lesson1Skills -help
```

Try **-text** argument to write and read text file.

Input the string for Employee on the command line. Please note that the String input is delimited with vertical line “|” for the name of Employee, salary and hire date, and minus sign “-“ for the year, month and day for the hire date.



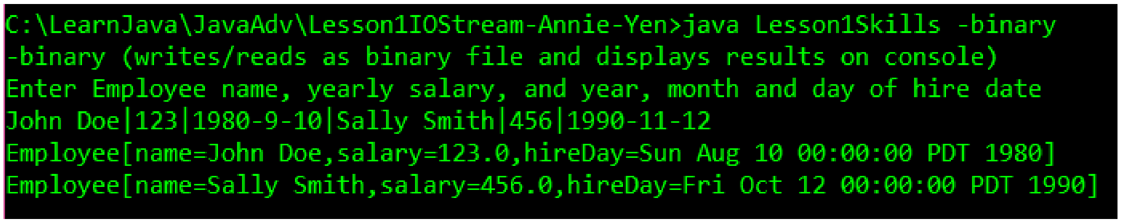
```
C:\LearnJava\JavaAdv\Lesson1IOStream-Annie-Yen>java Lesson1Skills -text
-text (writes/reads as text file and displays results on console)
Enter Employee name, yearly salary, and year, month and day of hire date
John Doe|123|1980-9-10|Sally Smith|456|1990-11-12
Employee[name=John Doe,salary=123.0,hireDay=Wed Sep 10 00:00:00 PDT 1980]
Employee[name=Sally Smith,salary=456.0,hireDay=Mon Nov 12 00:00:00 PST 1990]
```

```
java Lesson1Skills -text

John Doe|123|1980-9-10|Sally Smith|456|1990-11-12
```

Try **-binary** argument to write and read binary file.

Input the string for Employee on the command line. Please note that the String input is delimited with vertical line “|” for the name of Employee, salary and hire date, and minus sign “-“ for the year, month and day for the hire date.



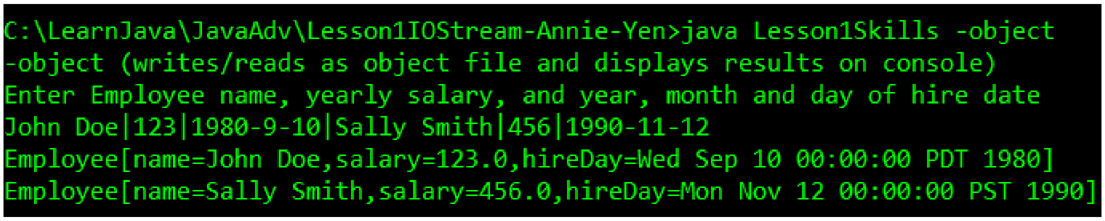
```
C:\LearnJava\JavaAdv\Lesson1IOStream-Annie-Yen>java Lesson1Skills -binary
-binary (writes/reads as binary file and displays results on console)
Enter Employee name, yearly salary, and year, month and day of hire date
John Doe|123|1980-9-10|Sally Smith|456|1990-11-12
Employee[name=John Doe,salary=123.0,hireDay=Sun Aug 10 00:00:00 PDT 1980]
Employee[name=Sally Smith,salary=456.0,hireDay=Fri Oct 12 00:00:00 PDT 1990]
```

```
java Lesson1Skills -binary

John Doe|123|1980-9-10|Sally Smith|456|1990-11-12
```

Try **-object** argument to write and read Employee object.

Input the string for Employee on the command line. Please note that the String input is delimited with vertical line "|" for the name of Employee, salary and hire date, and minus sign "-" for the year, month and day for the hire date.



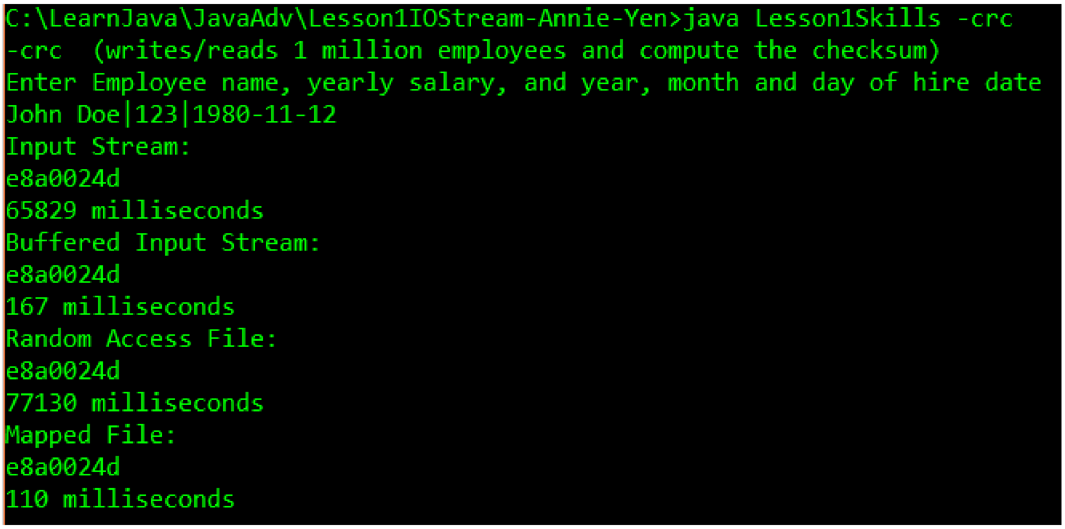
```
C:\LearnJava\JavaAdv\Lesson1IOStream-Annie-Yen>java Lesson1Skills -object
-object (writes/reads as object file and displays results on console)
Enter Employee name, yearly salary, and year, month and day of hire date
John Doe|123|1980-9-10|Sally Smith|456|1990-11-12
Employee[name=John Doe,salary=123.0,hireDay=Wed Sep 10 00:00:00 PDT 1980]
Employee[name=Sally Smith,salary=456.0,hireDay=Mon Nov 12 00:00:00 PST 1990]
```

java Lesson1Skills -object

John Doe|123|1980-9-10|Sally Smith|456|1990-11-12

Try **-crc** argument to compute the checksum of a file using traditional file input and a memory mapped file.

Input only one Employee name, salary, year, month and day of hire date to write 1 million employees of the same input of Employee.



```
C:\LearnJava\JavaAdv\Lesson1IOStream-Annie-Yen>java Lesson1Skills -crc
-crc  (writes/reads 1 million employees and compute the checksum)
Enter Employee name, yearly salary, and year, month and day of hire date
John Doe|123|1980-11-12
Input Stream:
e8a0024d
65829 milliseconds
Buffered Input Stream:
e8a0024d
167 milliseconds
Random Access File:
e8a0024d
77130 milliseconds
Mapped File:
e8a0024d
110 milliseconds
```

java Lesson1Skills -crc

John Doe|123|1980-11-12