You are given two files - books.list and sales.list.

books.list is a list of books that the store has in its catalog. The books.list file is a CSV file with each row representing a book. Each row has the following fields -
  1. book_id - a unique alphanumeric string that identifies the book.
  2. book_title - title of the book.
  3. book_author - name of author of book.
  4. book_price - a float representing the price of the book.

E.g
123A,A brief history of time, Stephen Hawking, 23.22
1S45, Hitchhiker's guide to the galaxy, Douglas Adams, 34.30

sales.list is a list of sales that have been made for a book. The file is a CSV file which is structured as follows:

Every row in the file represents a sale made.

  1. sale_date - a date in the form of YYYY-MM-DD indicating the date of sale.
  2. sale_email - email of the customer who purchased.
  3. sale_payment_method - method of payment - must be one of CASH or CARD
  4. sale_item_count - count of items (i.e books) purchased. This field determines how many more colums are to be read.
  5 onwards - each column contains a string that indicates the book_id and the quantity purchased.

E.g
2018-08-01,foo@bar.com,CASH,2,123A;3,1S45;1
2018-08-02,john@doe.com,CARD,1,1S45;1
2018-08-02,john@doe.com,CARD,1,123A;2

Your program must accept the following arguments on the command line.

--books=/path/to/books.list (required)

--sales=/path/to/sales.list (required)

--top_selling_books=<count> (optional) output the top <count> best selling books in terms of sale value

--top_customers=<count> (optional) output the top <count> customers in terms of value of purchases they've made.

--sales_on_date=<date> (optional) output the total sales amount on the date

For instance:
```
$ java BookSales --books=/path/to/books.list --
sales=/path/to/sales.list --top_selling_books=3 --
top_customers=2 --sales_on_date=2018-02-01
```

where BookSales is the class you've written than contains the main method. Please note $ is typically the shell's command prompt on most linux systems.

Your output from the program must be as follows:

```
top_selling_books\t<book_id_1>\t<book_id_2>\t...<book_id_n>\n
top_customers\t<customer_email_1>\t<customer_email_2>\t.....<c
ustomer_email_n>\n
sales_on_date\t<date>\t<total_sales_amount>\n
```

where \n is the new line character and \t is the tab character.

Instructions:

1. Please do not use any external libraries - you should be able to complete this program using standard java libraries and packages.

2. Write well structured code. Relevant and useful comments in code will be bonus points in your favor.

3. Include instructions to compile and run your program in a README.md file.

4. Your code should be compatible at least with Java 8.