

COLLEGE OF COMPUTER AND INFORMATION SCIENCES

DEPARTMENT OF SOFTWARE ENGINEERING



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قسم هندسة البرمجيات

SWE312: Software Requirements Engineering

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Assignment 2

STUDENT IDENTIFICATION:

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Question 1:

Express the following constraints in OCL.

1. Invariants

(a) A researcher must submit one manuscript.

```
context Researcher inv:  
self.manuscript → size() = 1
```

(b) A research must be assigned one submission.

```
context Researcher inv:  
self.submissior → size() = 1
```

(c) A paper must have at most 10000 words.

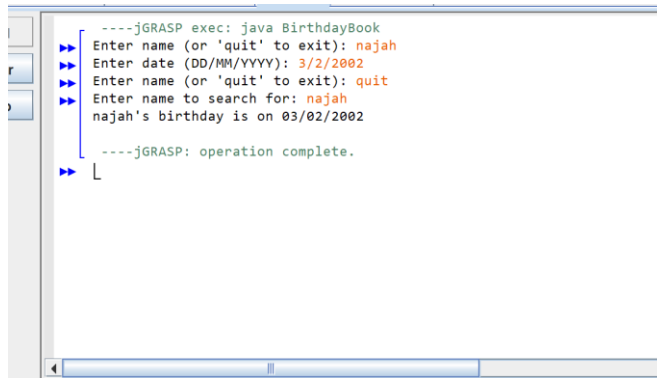
```
context Paper inv:  
self.wordCount <= 10000
```

(d) Students are not allowed to review any paper.

```
context Paper inv:  
self.referee → not exists(r | r.isStudent = 1)
```

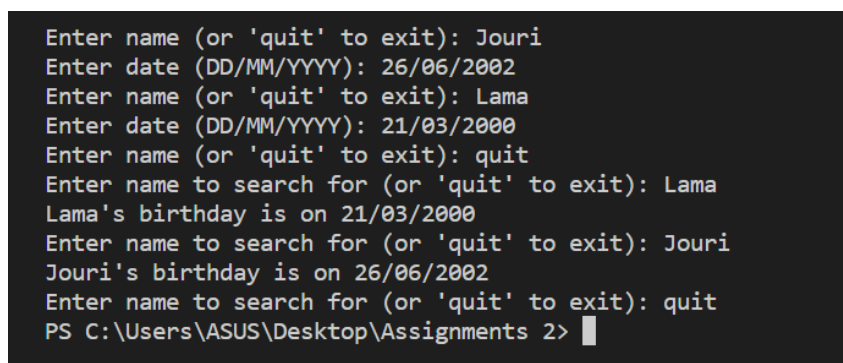
Question 2: Screen Shots of the outputs

A) A screen shot that represent the output for AddBirthday method.



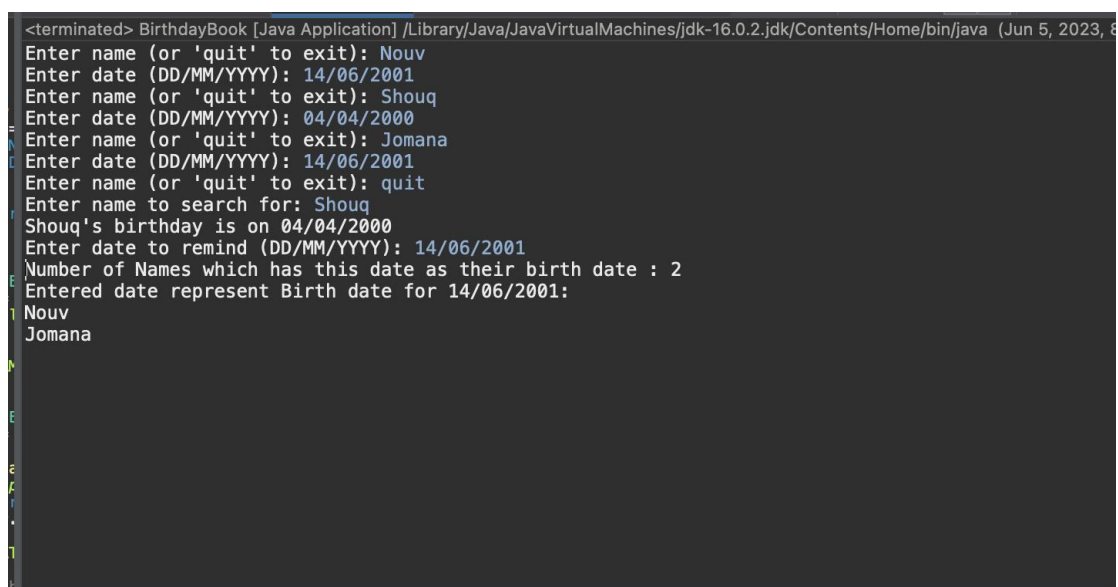
```
----jGRASP exec: java BirthdayBook
>> Enter name (or 'quit' to exit): najah
>> Enter date (DD/MM/YYYY): 3/2/2002
>> Enter name (or 'quit' to exit): quit
>> Enter name to search for: najah
    najah's birthday is on 03/02/2002
----jGRASP: operation complete.
>> L
```

B) A screen shot that represent the output for FindBirthday method.



```
Enter name (or 'quit' to exit): Jouri
Enter date (DD/MM/YYYY): 26/06/2002
Enter name (or 'quit' to exit): Lama
Enter date (DD/MM/YYYY): 21/03/2000
Enter name (or 'quit' to exit): quit
Enter name to search for (or 'quit' to exit): Lama
Lama's birthday is on 21/03/2000
Enter name to search for (or 'quit' to exit): Jouri
Jouri's birthday is on 26/06/2002
Enter name to search for (or 'quit' to exit): quit
PS C:\Users\ASUS\Desktop\Assignments 2>
```

C) A screen shot that represent the output for the **whole** Q2 including method Remind



```
<terminated> BirthdayBook [Java Application] /Library/Java/JavaVirtualMachines/jdk-16.0.2.jdk/Contents/Home/bin/java (Jun 5, 2023, 8
Enter name (or 'quit' to exit): Nouv
Enter date (DD/MM/YYYY): 14/06/2001
Enter name (or 'quit' to exit): Shouq
Enter date (DD/MM/YYYY): 04/04/2000
Enter name (or 'quit' to exit): Jomana
Enter date (DD/MM/YYYY): 14/06/2001
Enter name (or 'quit' to exit): quit
Enter name to search for: Shouq
Shouq's birthday is on 04/04/2000
Enter date to remind (DD/MM/YYYY): 14/06/2001
Number of Names which has this date as their birth date : 2
Entered date represent Birth date for 14/06/2001:
Nouv
Jomana
```

