RIPHAH
INTERNATIONAL
UNIVERSITY

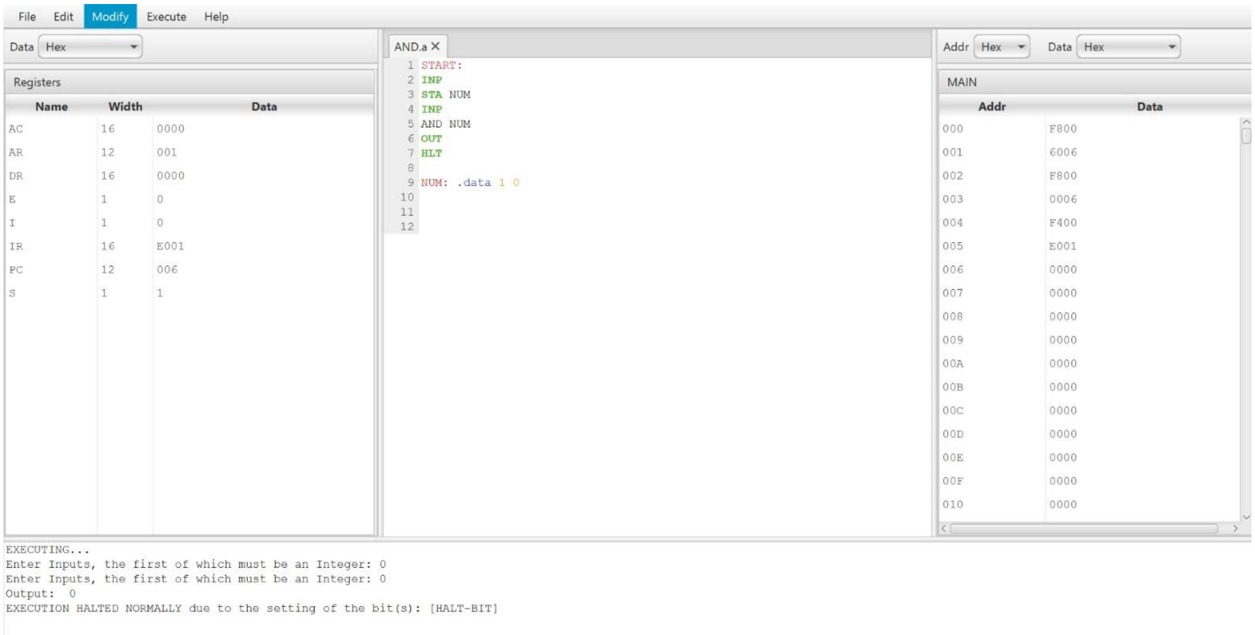
Name : Salma Rani

Sap ID : 54194

Instructor:Mam Ayesha

Lab submission:9

Class Work:



Data: Hex

Registers

Name	Width	Data
AC	16	0000
AR	12	001
DR	16	0000
E	1	0
I	1	0
IR	16	E001
PC	12	006
S	1	1

```
START:
INP
STA NUM
INP
AND NUM
OUT
HLT

NUM: .data 1 0
```

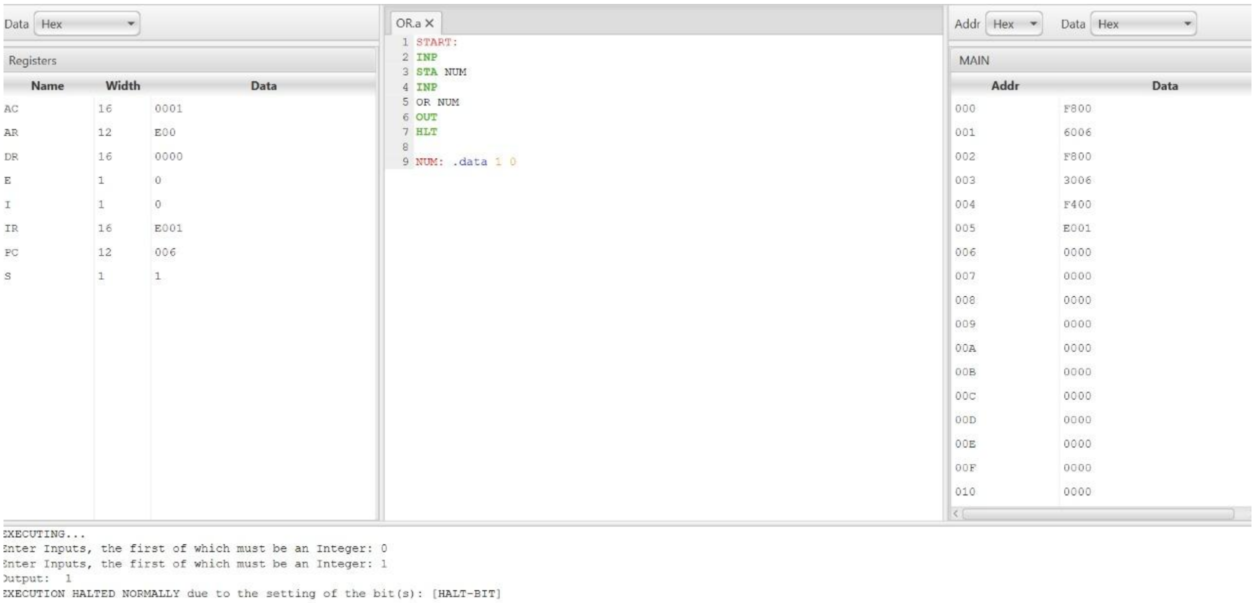
Addr: Hex   Data: Hex

MAIN

Addr	Data
000	F800
001	6006
002	F800
003	0006
004	F400
005	E001
006	0000
007	0000
008	0000
009	0000
00A	0000
00B	0000
00C	0000
00D	0000
00E	0000
00F	0000
010	0000

```
EXECUTING...
Enter Inputs, the first of which must be an Integer: 0
Enter Inputs, the first of which must be an Integer: 0
Output:  0
EXECUTION HALTED NORMALLY due to the setting of the bit(s): [HALT-BIT]
```

Task 1:OR Operation



Data: Hex

Name	Width	Data
AC	16	0001
AR	12	E00
DR	16	0000
E	1	0
I	1	0
IR	16	E001
PC	12	006
S	1	1

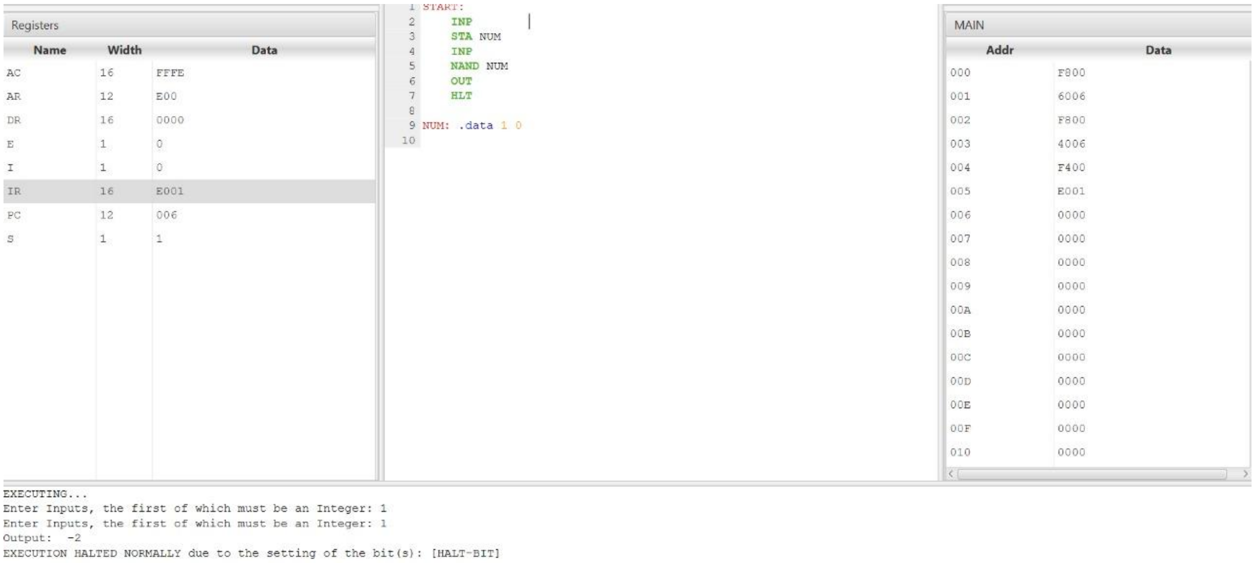
```
START:
INP
STA NUM
INP
OR NUM
OUT
HLT

NUM: .data 1 0
```

Addr: Hex Data: Hex

Addr	Data
000	F800
001	6006
002	F800
003	3006
004	F400
005	E001
006	0000
007	0000
008	0000
009	0000
00A	0000
00B	0000
00C	0000
00D	0000
00E	0000
00F	0000
010	0000

```
EXECUTING...
Enter Inputs, the first of which must be an Integer: 0
Enter Inputs, the first of which must be an Integer: 1
Output:  1
EXECUTION HALTED NORMALLY due to the setting of the bit(s): [HALT-BIT]
```

Task 2:NAND Operation



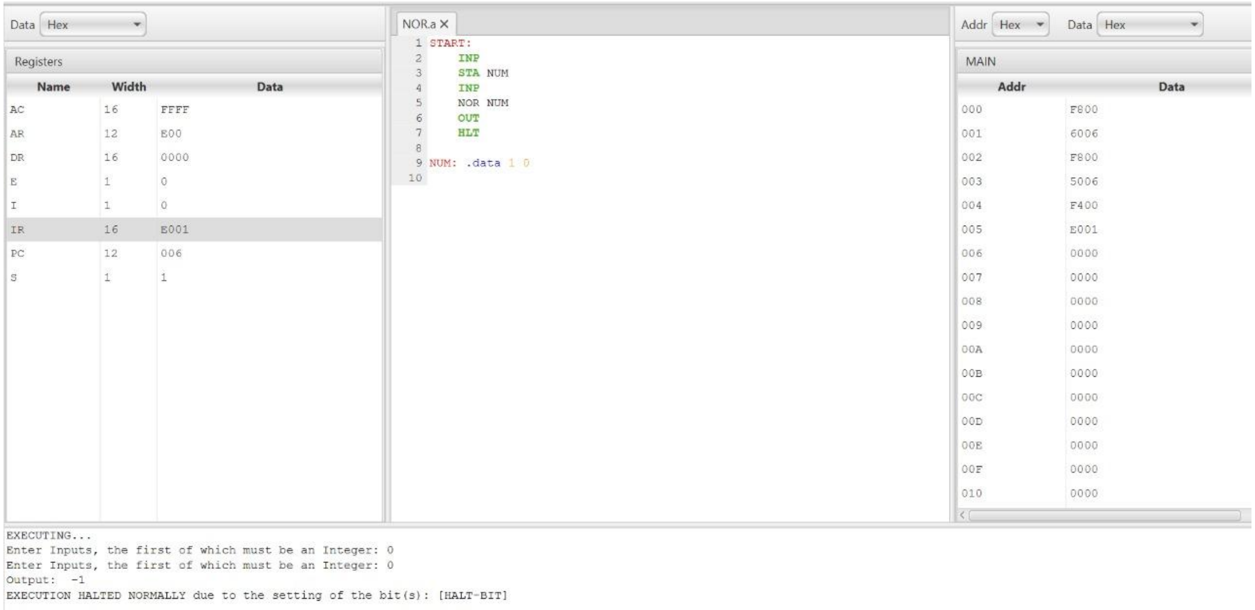
Name	Width	Data
AC	16	FFFE
AR	12	E00
DR	16	0000
E	1	0
I	1	0
IR	16	E001
PC	12	006
S	1	1

```
START:
    INP
    STA NUM
    INP
    NAND NUM
    OUT
    HLT

NUM: .data 1 0

```

Addr	Data
000	F800
001	6006
002	F800
003	4006
004	F400
005	E001
006	0000
007	0000
008	0000
009	0000
00A	0000
00B	0000
00C	0000
00D	0000
00E	0000
00F	0000
010	0000

```
EXECUTING...
Enter Inputs, the first of which must be an Integer: 1
Enter Inputs, the first of which must be an Integer: 1
Output:  -2
EXECUTION HALTED NORMALLY due to the setting of the bit(s): [HALT-BIT]
```

Task 3:NOR Operation



Data Hex

Registers

Name	Width	Data
AC	16	FFFF
AR	12	E00
DR	16	0000
E	1	0
I	1	0
IR	16	E001
PC	12	006
S	1	1

NOR.a

```
START:
    INP
    STA NUM
    INP
    NOR NUM
    OUT
    HLT

NUM: .data 1 0
```

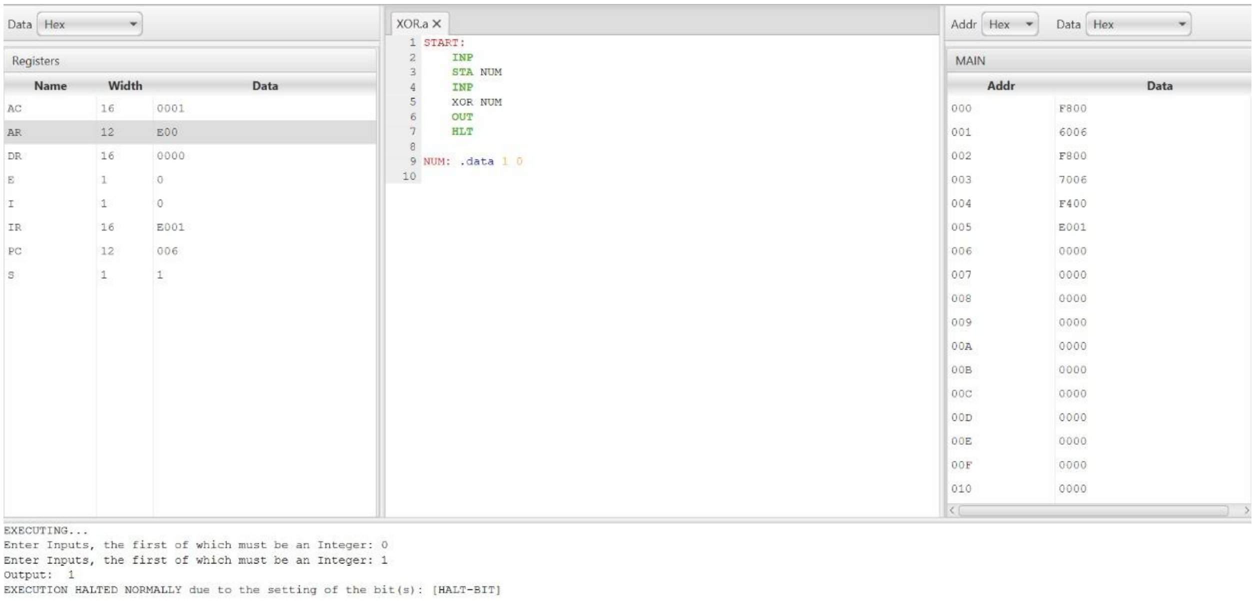
Addr Hex Data Hex

MAIN

Addr	Data
000	F800
001	6006
002	F800
003	5006
004	F400
005	E001
006	0000
007	0000
008	0000
009	0000
00A	0000
00B	0000
00C	0000
00D	0000
00E	0000
00F	0000
010	0000

```
EXECUTING...
Enter Inputs, the first of which must be an Integer: 0
Enter Inputs, the first of which must be an Integer: 0
Output:  -1
EXECUTION HALTED NORMALLY due to the setting of the bit(s): [HALT-BIT]
```

Task 4:XOR Operation



Data Hex

Registers

Name	Width	Data
AC	16	0001
AR	12	E00
DR	16	0000
E	1	0
I	1	0
IR	16	E001
PC	12	006
S	1	1

XOR.a

```
START:
    INP
    STA NUM
    INP
    XOR NUM
    OUT
    HLT

NUM: .data 1 0
```

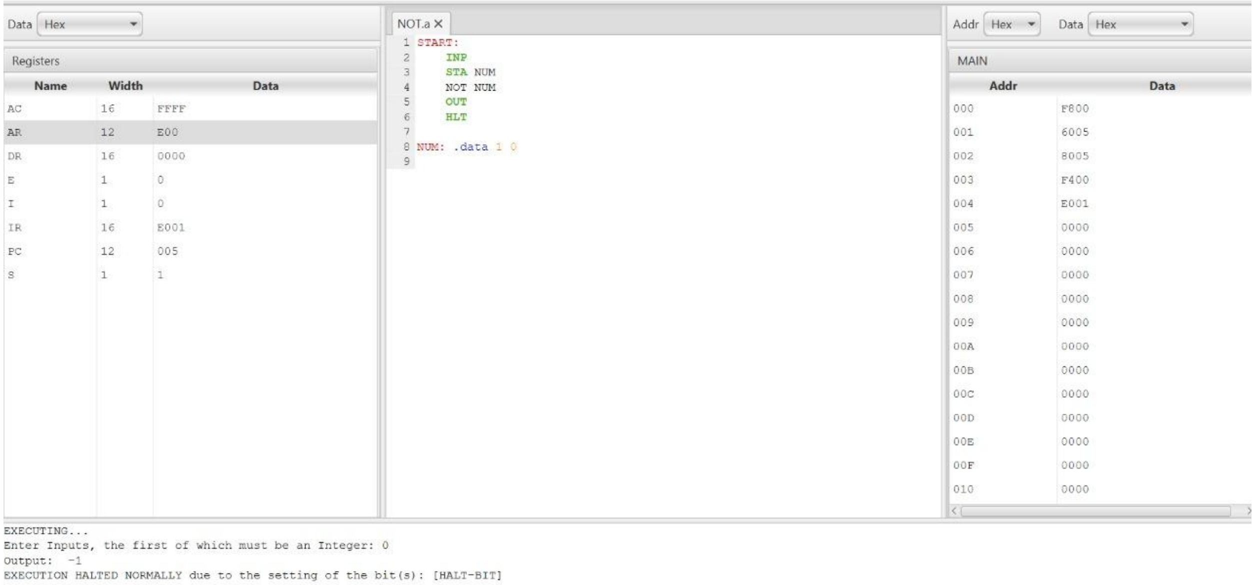
Addr Hex Data Hex

MAIN

Addr	Data
000	F800
001	6006
002	F800
003	7006
004	F400
005	E001
006	0000
007	0000
008	0000
009	0000
00A	0000
00B	0000
00C	0000
00D	0000
00E	0000
00F	0000
010	0000

```
EXECUTING...
Enter Inputs, the first of which must be an Integer: 0
Enter Inputs, the first of which must be an Integer: 1
Output:  1
EXECUTION HALTED NORMALLY due to the setting of the bit(s): [HALT-BIT]
```

Task 5:NOT Operation



Name	Width	Data
AC	16	FFFF
AR	12	E00
DR	16	0000
E	1	0
I	1	0
IR	16	E001
PC	12	005
S	1	1

```
START:
    INP
    STA NUM
    NOT NUM
    OUT
    HLT

NUM: .data 1 0

```

Addr	Data
000	F800
001	6005
002	8005
003	F400
004	E001
005	0000
006	0000
007	0000
008	0000
009	0000
00A	0000
00B	0000
00C	0000
00D	0000
00E	0000
00F	0000
010	0000

```
EXECUTING...
Enter Inputs, the first of which must be an Integer: 0
Output:  -1
EXECUTION HALTED NORMALLY due to the setting of the bit(s): [HALT-BIT]
```