

1.) Convert Hexadecimal to binary 24F

$$(24F)_{16} = (0010\ 0100\ 1111)_2$$

2.) Convert any one Octal to Binary

$$(12)_8 = (001\ 010)_2$$

3.) Create Inputs and outputs Dominos Pizza Store and web site

Input Details:

- Customer's name
- Contact number
- Customer's email
- Customer's address
- Customer's order details
- Mode of payment
- Payment credentials
- Customer's feedback

Output details:

- An UI interface for the website
- Personalized recommendations
- Offers
- Order's bill
- An Realtime order delivery tracking feature

4.) Create a new Repository -add 2 files file1.txt and file2.txt commit 2 files,modify file2.txt and commit

```
MINGW64:/f/assignment/assignment1

Anirban@DESKTOP-QI1FPAD MINGW64 /f/assignment
$ mkdir assignment1

Anirban@DESKTOP-QI1FPAD MINGW64 /f/assignment
$ cd assignment1

Anirban@DESKTOP-QI1FPAD MINGW64 /f/assignment/assignment1
$ touch file1.txt

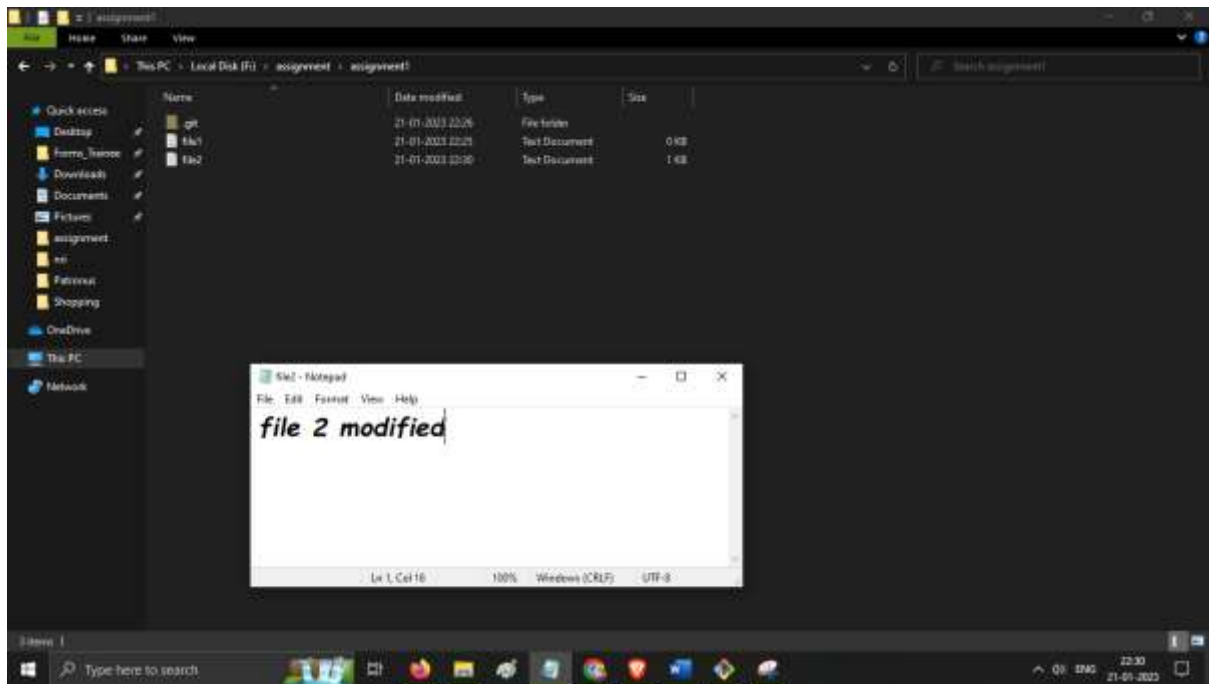
Anirban@DESKTOP-QI1FPAD MINGW64 /f/assignment/assignment1
$ touch file2.txt

Anirban@DESKTOP-QI1FPAD MINGW64 /f/assignment/assignment1
$ git init
Initialized empty Git repository in F:/assignment/assignment1/.git/

Anirban@DESKTOP-QI1FPAD MINGW64 /f/assignment/assignment1 (master)
$ git add .

Anirban@DESKTOP-QI1FPAD MINGW64 /f/assignment/assignment1 (master)
$ git commit -m "add file1 and file2"
[master (root-commit) dab3d4b] add file1 and file2
2 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 file1.txt
create mode 100644 file2.txt

Anirban@DESKTOP-QI1FPAD MINGW64 /f/assignment/assignment1 (master)
$ |
```



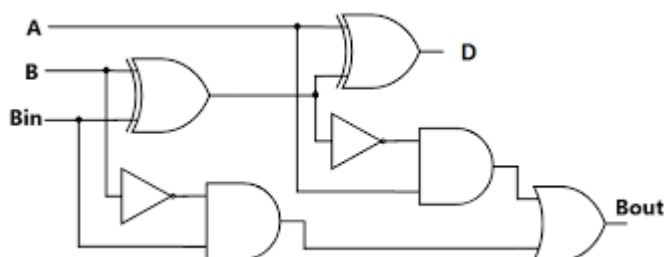
```
Anirban@DESKTOP-QI1FPAD MINGW64 /f/assignment/assignment1 (master)
$ git add file2.txt

Anirban@DESKTOP-QI1FPAD MINGW64 /f/assignment/assignment1 (master)
$ git commit -m "modified file2"
[master 3bd20f9] modified file2
1 file changed, 1 insertion(+)
```

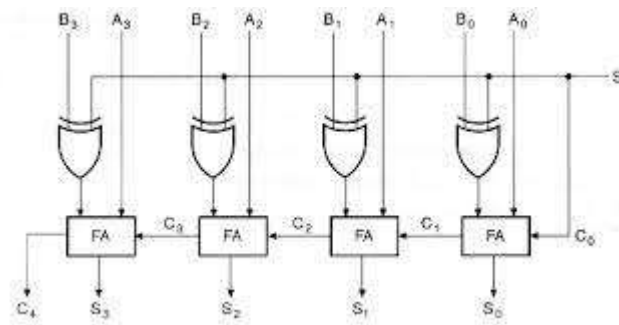
5.) Create logic function to compare 2 sets of numbers and show which is greater. eg: $100 > 50$

Let $F1(P,Q)$ be the logic function where if $P > Q$ then it gives 1 else 0. Let $F2(P,Q)$ be the logic function where if $P = Q$ then it gives 1 else 0. Let $F3(P,Q)$ be the logic function where if $P < Q$ then it gives 1 else 0.

A subtractor logic - $D(p,q,Bin) = p \text{ XOR } q \text{ XOR } Bin$ Bout(p,q,Bin) = $p'.Bin + p'.q + q.Bin$



The above are subtractor logic of 1-bit number. In n-bit subtractor, the Bout of lower position bit is fed into Bin of higher position bit. A 4-bit logic circuit for adder-subtractor is given below –



Let the N bit number be A and B. The C0 will be 1. The output will be Sn.....S0 of N-bit and 1-bit Bout.

$$\bigcup_{i=0}^N S_i$$

Let Z =

$$F2(A,B) = Z'$$

$$F1(A,B) = Z.Bout'$$

$$F3(A,B) = Z.Bout$$