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MATRIC NO: 18/ENG04/048

DEPARTMENT: ELECTRICAL ENGINEERING.

COURSE CODE: ENG 224.
COURSE: STRUCTURED COMPUTER PROGRAMMING.

1.) Design the application following the software development cycle

a) Requirement gathering and analysis;

I will analyze the covid- 19 situation, once I get the issue the problem can be resolved, the application I will create will be able to detect if anyone has the symptoms of the virus and the camera of the device in use will be used to scan and detect for reactions that are abnormal in the body.

b.) Design;

This is where I will create documents which will act as an input for the next phase.

c.) Implementation or coding;

I will use the documents I created from design that is acting as the input, this stage is where documents gets used.

d.) Testing;

My developed code is tested thoroughly to detect the defects in my application. Defects are logged into the defect tracking tool and is retested once fixed.

e.) Deployment;

The developed code is moved into production after testing.

f.) Maintenance;

This stage is where the developer comes in if there is any issue with the application.

2.)   Critically discuss the hardware and software features.

HARDWARE FEATURES

This app has been developed using 16 GB of RAM, i7 2.9 GHz 500 GB Hard disk space but the Minimum requirement of such kind of application development for a machine is:

1) 1.8 GHz or faster processor.
2) 4 GB of RAM.
3) 16GB (NTFS) of available hard disk space.

SOFTWARE FEATURES

This app is developed on a platform of Microsoft Windows 10 Operating System. Microsoft Windows is a series of graphical interface operating systems designed, developed, marketed, and sold by Microsoft onwards from November 20, 1985. The most recent versions of Windows are windows 8.1 and 10.The Other Supported Operating systems are:

1) Windows 7 SP1 (x86 and x64)
2) Windows 8 (x86 and x64)

3.)   Support your answer with a flowchart and an

algorithm

ALGORITHM
P-Positive.
N-Negative.
STEP 1: Start.
STEP 2: Detect A.
STEP 3: Read detect.
STEP 4: If A==P
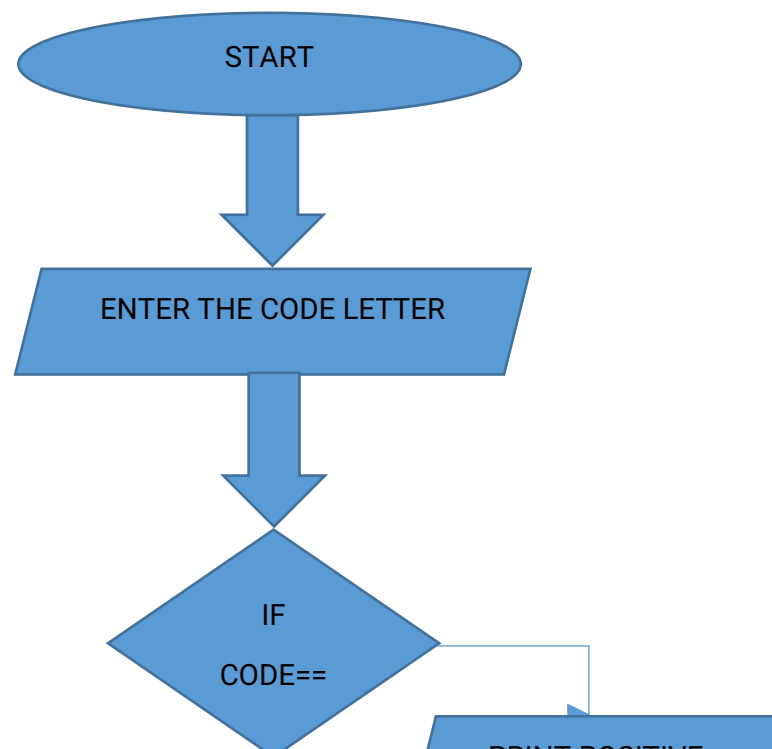Print 'Positive'
Else if A==N
Print 'Negative'
Else
Wrong code enter.

STEP 5: Stop.

FLOWCHART

```
                    ┌─────────────────┐
                    │     START       │
                    └────────┬────────┘
                             │
                             ▼
                 ┌───────────────────────┐
                 │  ENTER THE CODE LETTER │
                 └───────────┬───────────┘
                             │
                             ▼
                         ◇ IF
                       CODE==
```

4.) TOP-DOWN DESIGN

```
                    DISEASE
                    DETECTIO
                       N

      SCAN         DETECT         ALERT
```