**NAME: OSOHOR OGHENEFEGOR WISDOM**

**MATRIC NUMBER: 18/MHS01/322**

**DEPARTMENT: ELECTRICAL ENGINEERING**

**ASSIGNMENT ON ALGORITHM**

**DESIGN PHASE:**

In this section, we build a model of the web application. It is in this model that we exploit as much abstraction as appropriate. During this phase we make use of algorithms, flow charts, in order to make a model design of the application.

**ALGORITHM.**

STEP1: START

STEP2: LET CASE 1=0

STEP3: LET CASE 2=0

STEP4: LET POSITIVE=0

STEP5: LET NEGATIVE=0

STEP6: LET TEMPERATURE=0

STEP7: LET SYMPTOM=0

STEP8: READ TEMPERATURE

STEP9: IF THE TEMPERATURE>37, ADD 1 TO CASE 2

STEP10: NOT VALID? THEN ADD 1 TO CASE 1

STEP11: INPUT SYMPTOM DATA

STEP12: IF SYMPTOMS> 1, ADD 1 TO NEGATIVE

STEP13: NOT VALID? CONDUCT COVID-19 TEST

STEP14: IF TEST RESULT IS POSITIVE, DISPLAY COVID-19 STATUS

STEP16: CALCULATE PERCENTAGE=(POSITIVE TOTAL/COMMUNITY)\*100

STEP17: STORE ALL DATA INTO DATABASE

STEP18: END

**FLOWCHART**

START

CASE1=0

CASE2=0 POSITIVE=0

NEGATIVE=0

TEMPERATURE=0

SYMPTOMS=0

READ TEMPERATURE

IS NO TEMPERATURE>37

YES

ADD TO CASE 1

INPUT SYMPTOMS

ADD 1 TO CASE 2

SYMPTOMS> 1?

NEGATIVE

YES

CONDUCT TEST

TEST POSITIVE?

YES

POSITIVE

NO

NO

NEGATIVE

DISPLAY COVID-19 STATUS

PERCENTAGE= (POSITIVE TOTAL/COMMUNITY)\*100

STORE ALL DATA IN DATA BASE

END

**BOTTOM-UP APPROACH**

CASE1

CASE2

POSITIVE

NEGATIVE

TEMPERATURE

SYMPTOM CHECKS

DISPLAY STAUS

STORE IN DATABASE

**TOP-DOWN APPROACH**

STORE IN DATABASE

STORE IN DATABASE

STORE IN DATABASE

STORE IN DATABASE

STORE IN DATABASE

STORE IN DATA BASE

STORE IN DATABASE

STORE IN DATABASE

So after all these processes, an account will be created to manage the data stored in the data base.

**DEVELOPMENT STAGE:**

This is the phase in which we discuss about making of the above model into software used by the hardware. The application critically requires that it is to be accessed on all platforms. Meanwhile the software made so it can be accessible to all the staffs in the hospital.

**TESTING PHASE:**

After the application is made a debugging operation will be carried out to see errors. When the application is ready, we will now take the final step i.e deploying. Debugging usually takes time so the code can be reviewed thoroughly.

**DEPLOYMENT STAGE:**

In this stage, the program is launched into the web or server used by the hospital where it can be used freely by the staffs.