

NAME: SHEKONI OLUWASEYITAN

MATRIC NO: 18/ENG02/087

DEPARTMENT: BIOMEDICAL ENGINEERING

COURSE: STRUCTURED PROGRAMMING(ENG224)

ASSIGNMENT TITLE: ALGORITHM

CONCEPTUALIZATION

Coronavirus Web based application

SPECIFICATION

I. HARDWARE

- Free standing console
- Swabs
- Sample storage
- Cartridge

II. SOFTWARE

- GUI
- Access control system
- Storage disk
- Error detection

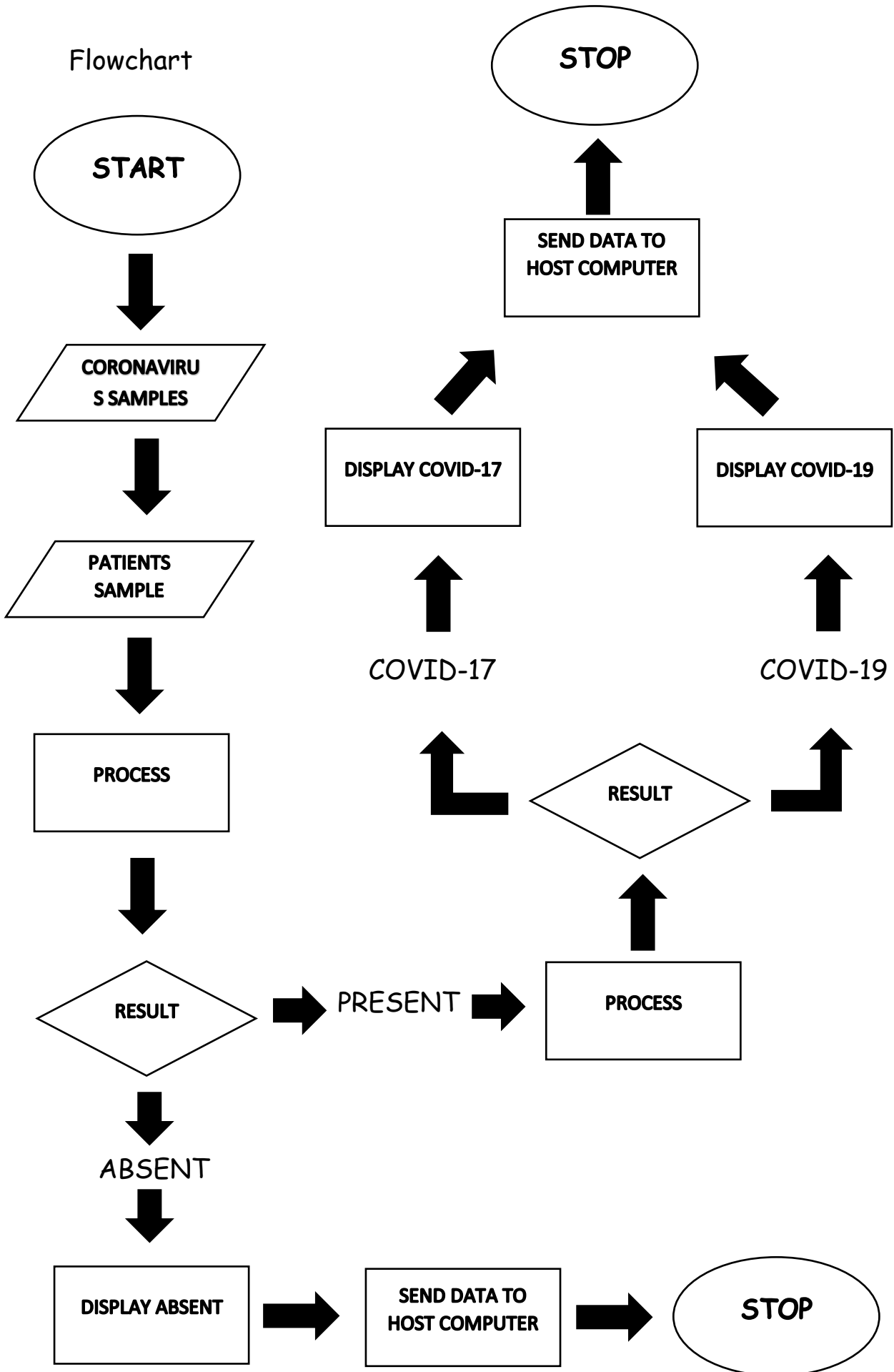
DESIGN

Algorithm

Steps:

1. START
2. COVID-19 SAMPLE==X
3. COVID-17 SAMPLE==O
4. ENTER PATIENTS SAMPLE==P
5. IF P==X
PRINT "POSITIVE, COVID-19 PRESENT"
ELSE IF
P==O
PRINT "POSITIVE, COVID-17 PRESENT"
ELSE
PRINT "NEGATIVE"
6. STOP

Flowchart



HARDWARE FEATURES

- Free-standing console: this is the console which the patients sample DNA from the swab will be placed in along with the coronavirus samples (RNA) to test if there is any similarities as similarities indicate the patient has the virus.
- Swab: this is what the medical personnel would use to get samples from the patient either taking the sample from the nose, mouth or telling the patient to cough into it.
- Sample storage: this is where all the patient samples would be kept.
- Cartridge: this is where the patients' sample and the coronavirus samples would be placed on before inserting into the free-standing console.

SOFTWARE FEATURES

- GUI: the GUI, Graphic User Interface will be a system of interactive visual components for the computer software. The GUI will display texts, objects that convey information about coronavirus and represent actions (i.e pushbutton) that will be taken by the user.
- Access control system: the access control system will be the electronic system that is designed to control the in and out of the web page and more through a network and it would have an access to a network. The access control system will recognize authenticates and authorizes entry of a personell to enter into the premise thereby giving complete protection ensuring security with the system.
- Storage disk: this would be where information about the patients and data about their results would be saved asides the printed result that may be stored elsewhere.
- Error detection: this would be placed to detect any error that may arise as the program runs, while handling patients results.

Top-down design approach of the application

