The Automatic Connect

GNG 2101 Group 5

Problem statement

A need arises for patients with different problems at Saint-Vincent hospital, who find it difficult to sign into wifi connections at home or workplaces. The client Bocar N’diaya requires a password manager software application with hardware components that vary following patients problem (eg; buttons), the software enable password autofill, stores passwords and creates new passwords every month. solving this problem makes wifi connection easy for the patients.

Client needs

Construct a device that enables the patient to override the login page when connecting to the hospital WiFi

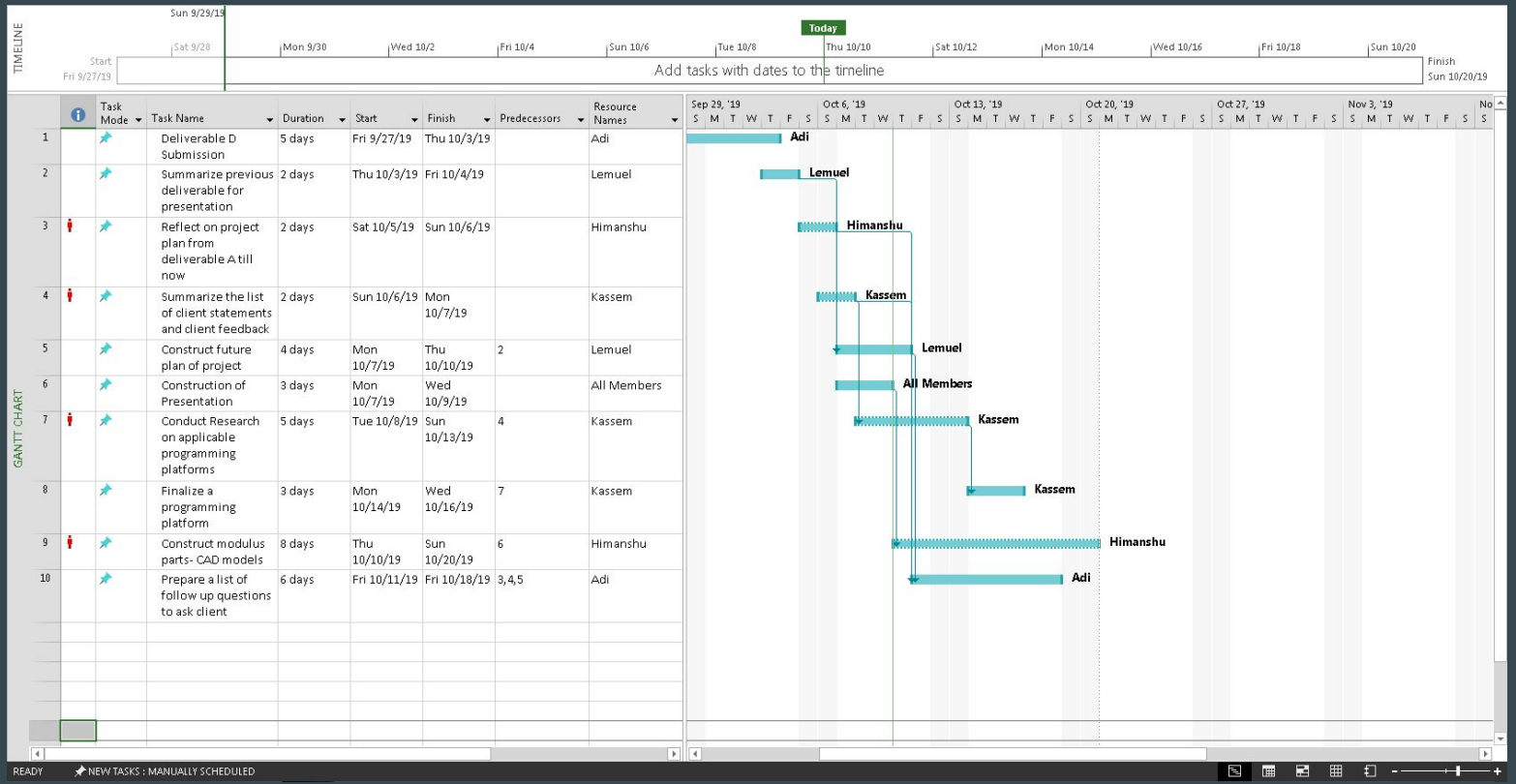
Bocar has stated that the WiFi password changes every month

The connection drops out approximately every 4-5 hours

A solution that ideally works for patients with various disabilities

Potentially have passwords saved on file 2 months in advance

Gantt Chart


TIMELINE
Sun 9/29/19
Today
Sat 9/28
Mon 9/30
Wed 10/2
Fri 10/4
Sun 10/6
Tue 10/8
Thu 10/10
Sat 10/12
Mon 10/14
Wed 10/16
Fri 10/18
Sun 10/20
Start
Fri 9/27/19
Add tasks with dates to the timeline
Finish
Sun 10/20/19
GANTT CHART
Task Mode
Task Name
Duration
Start
Finish
Predecessors
Resource Names
1 Deliverable D Submission 5 days Fri 9/27/19 Thu 10/3/19 Adi
2 Summarize previous deliverable for presentation 2 days Thu 10/3/19 Fri 10/4/19 Lemuel
3 Reflect on project plan from deliverable A till now 2 days Sat 10/5/19 Sun 10/6/19 Himanshu
4 Summarize the list of client statements and client feedback 2 days Sun 10/6/19 Mon 10/7/19 Kassem
5 Construct future plan of project 4 days Mon 10/7/19 Thu 10/10/19 2 Lemuel
6 Construction of Presentation 3 days Mon 10/7/19 Wed 10/9/19 All Members
7 Conduct Research on applicable programming platforms 5 days Tue 10/8/19 Sun 10/13/19 4 Kassem
8 Finalize a programming platform 3 days Mon 10/14/19 Wed 10/16/19 7 Kassem
9 Construct modulus parts- CAD models 8 days Thu 10/10/19 Sun 10/20/19 6 Himanshu
10 Prepare a list of follow up questions to ask client 6 days Fri 10/11/19 Fri 10/18/19 3,4,5 Adi
Sep 29, '19
Oct 6, '19
Oct 13, '19
Oct 20, '19
Oct 27, '19
Nov 3, '19
Adi
Lemuel
Himanshu
Kassem
Lemuel
All Members
Kassem
Kassem
Himanshu
Adi
READY
NEW TASKS : MANUALLY SCHEDULED

Sub Assemblies

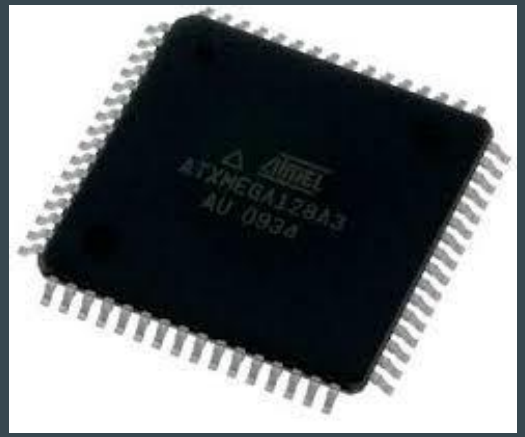
Sub-Assembly is the process that combines or builds components into component assemblies for inclusion in larger end items. It is the combining of components to create a new parent that requires assembly. Sub-assembly for the project are the following.

- Microcontroller (Raspberry Pi)
- Hardware components
- Software Components

The microcontroller

The microcontroller is a compact integrated circuit designed to govern a specific operation in an embedded system.

Fig 1;



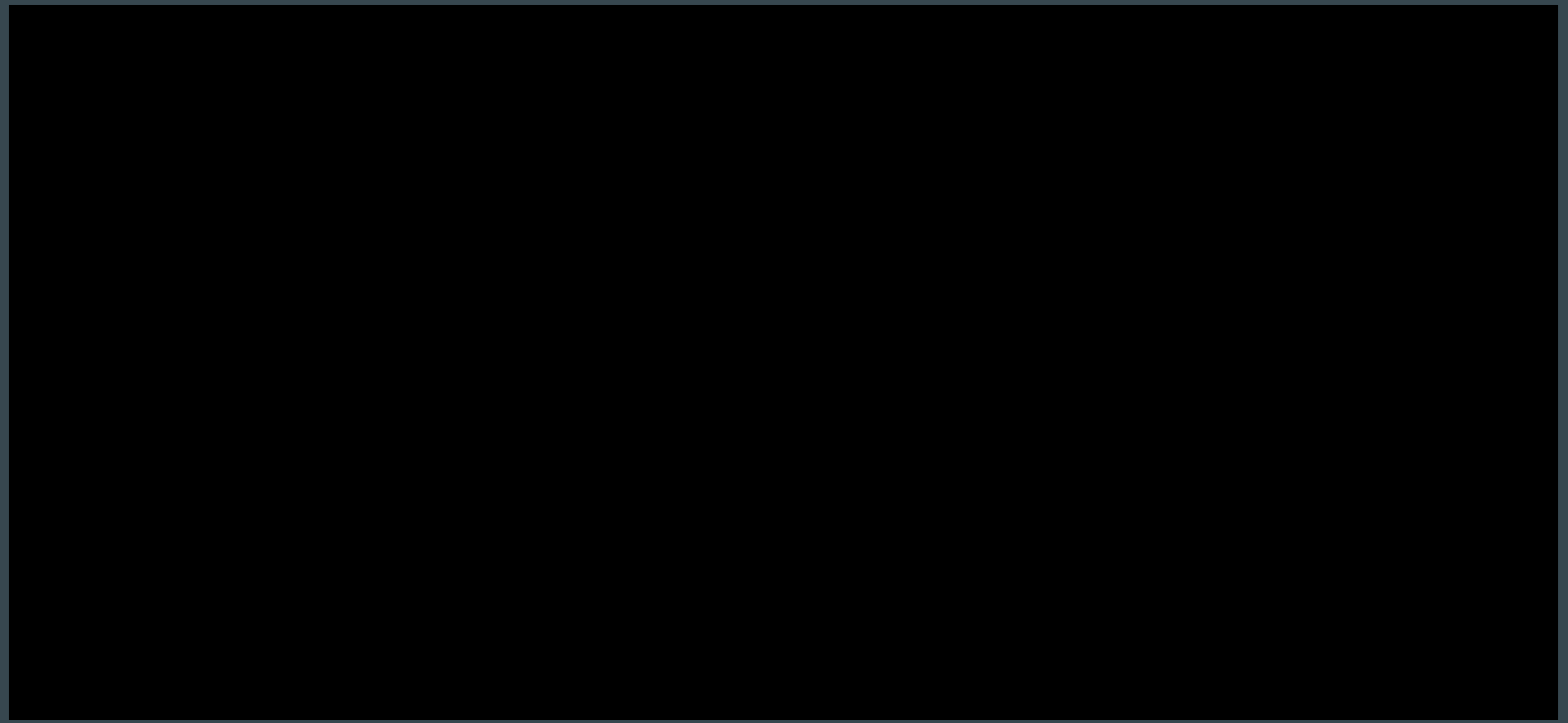
Hardware

A Normally Open (NO) Push Button is a push button that, in its default state, makes no electrical contact with the circuit. Only when the button is pressed down does it make electrical contact with the circuit.

Fig 2; Push-button switch

Software

```
def wifiscan():

   allSSID = Cell.all('wlan0')
   print allSSID # prints all available WIFI SSIDs
   myssid= 'Cell(ssid=vivekHome)' # vivekHome is my wifi name

   for i in range(len(allSSID )):
        if str(allSSID [i]) == myssid:
                a = i
                myssidA = allSSID [a]
                print b
                break
        else:
                print "getout"

   # Creating Scheme with my SSID.
   myssid= Scheme.for_cell('wlan0', 'home', myssidA, 'vivek1234') # vive1234 is the p

   print myssid
   myssid.save()
   myssid.activate()

wifiscan()
```



Why our design

- Easy to use
- Minimum effort needed
- Can go with patients wherever they go
- Low Maintenance
- Affordable

Constraints

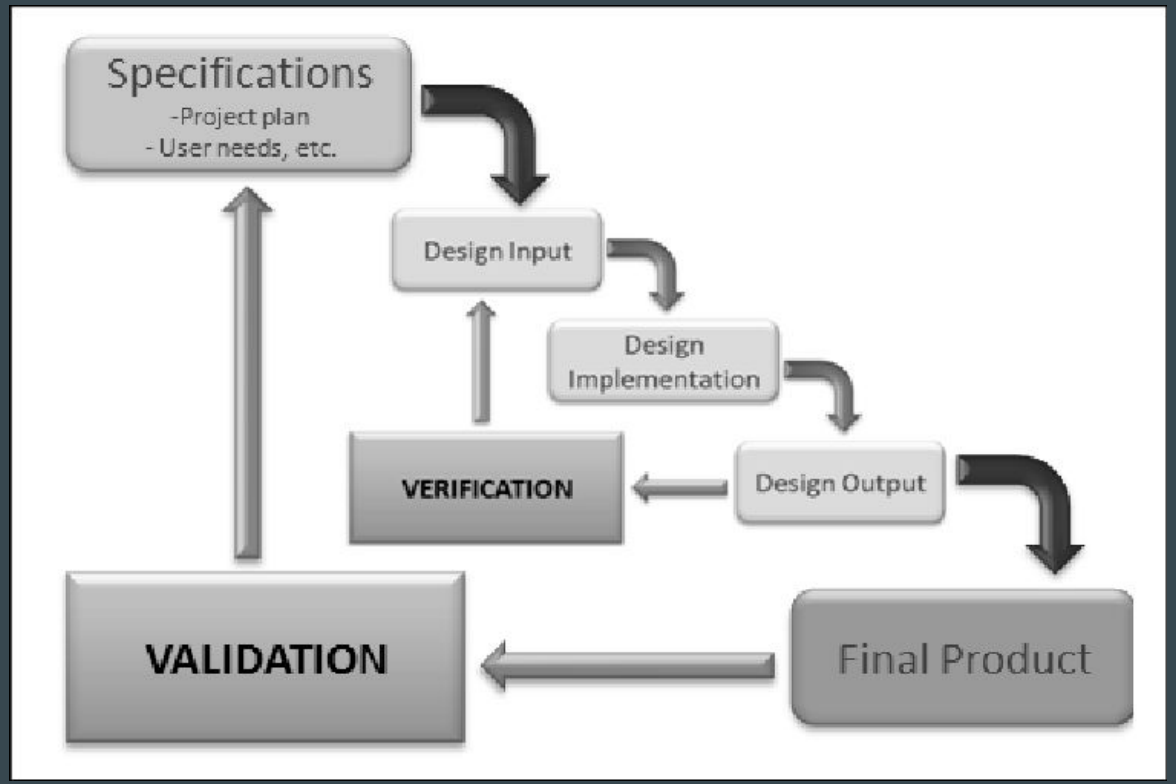
- Limited to somewhere about $100 or less
- The design must be able to accommodate as many as patients possible
- The final constraints would be the size of the button and how and where we would place it so it is easily accessible for every patient

Benchmarking

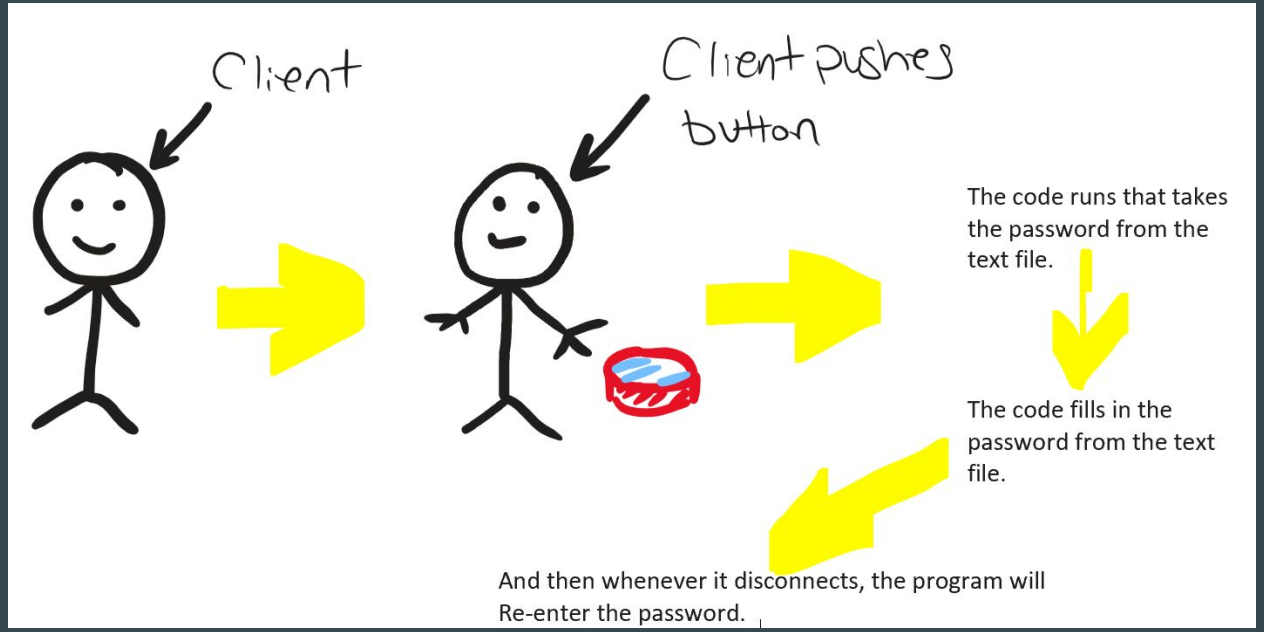
Benchmarks	iOS Software	Wifi Web Login	Button
Storage	2	5	3
Cost	5	2	3
Update	5	3	5
Customer Service	4	4	5
Handling/Servicing	3	4	4
Total	19	18	**20**

Design Process

The design process we choose was Waterfall.



Client Feedback



Feasibility Study

- Technical
- Economical
- Legal
- Operational
- Schedule

Conclusion

Thank you for Listening

Any questions?