| No.	Alph	Person ID	Phone Number	Token1 First Person	Timestamp (day_mth_year_time) (check in)	Timestamp (day_mth_year_time) (check out)	Locationtag	persontag	btsignal2 >10mins	btcount
1	P1	S98765432A	91234567	1	100320201700	1003202100	heartland	0	1	1
2	P2	S98765431B	91234566	2	100320201630	1003201800	heartland	1	1	1
3	P3	S98765421C	91234565	3	100320201200	1003201730	heartland	2	0	0
4	P4	S98765321D	91234564	4	100320201710	1003201830	heartland	1	1	1
4	P4	S98765321D	91234564	4	100320201900	1003202000	tenmile	1	1	1
5	P5	S98764321E	91234563	5	090320201000	0903201200	heartland	2	0	0
6	P6	S98754321F	91234562	6	100320201230	1003201600	tenmile	2	0	0
7	P7	S98654321G	91234561	7	100320201730	1003201940	tenmile	1	1	1

persontag = 0 or 1 , or 2
0 means covid patient, 1 means close contact, 2 means nothing.

btsignal1 & btsignal2 =
1 = True
0 = False

Location: heartland

Location: tenmile

Bluetooth range

P1

P2

P3

P4

P7

P6
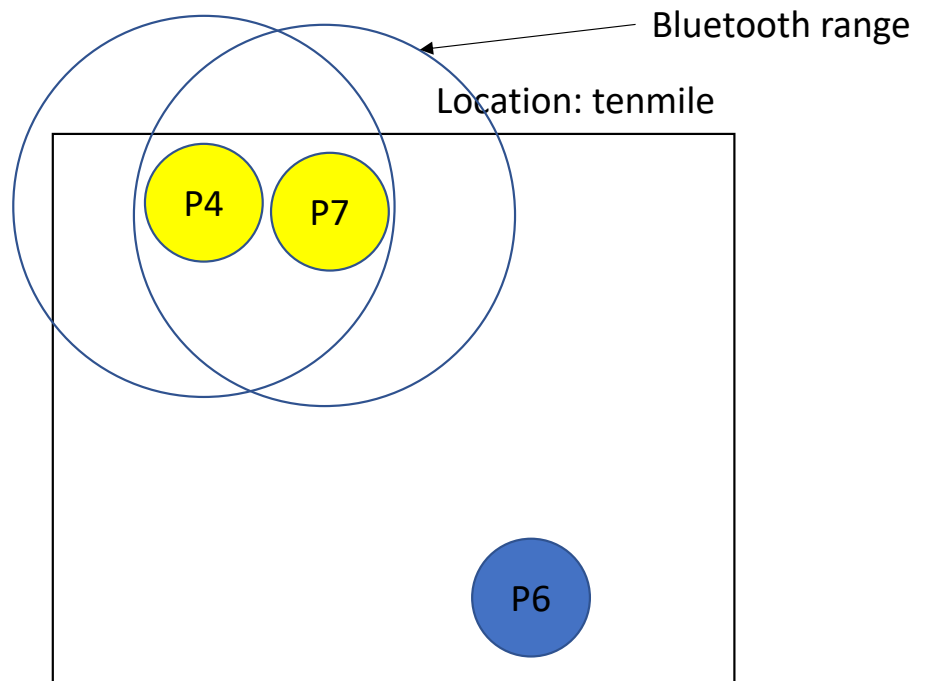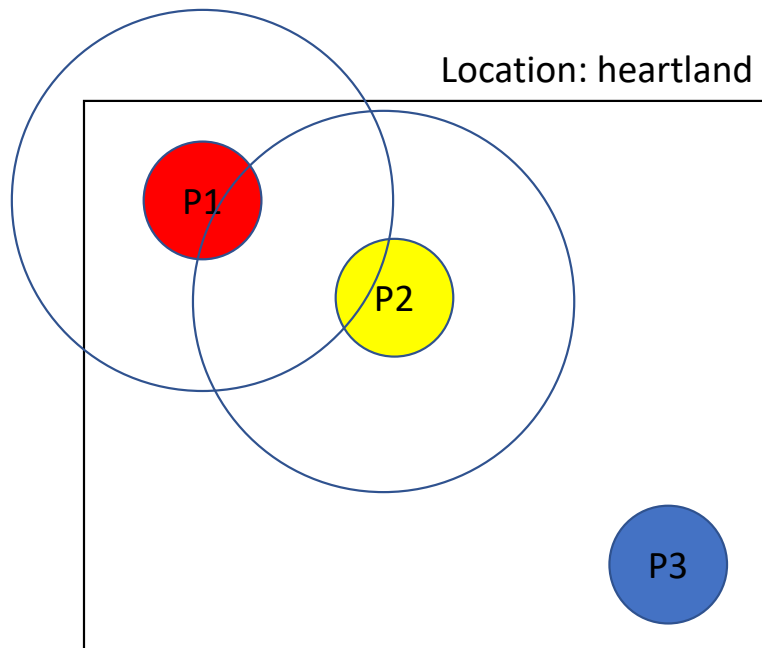
Scenario:

A got covid at heartland

1. P1 got close contact with P2 at heartland
2. P2 got close contact with P4 at heartland
3. P4 went to tenmile
4. P4 got close contact with P7 at tenmile
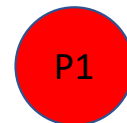
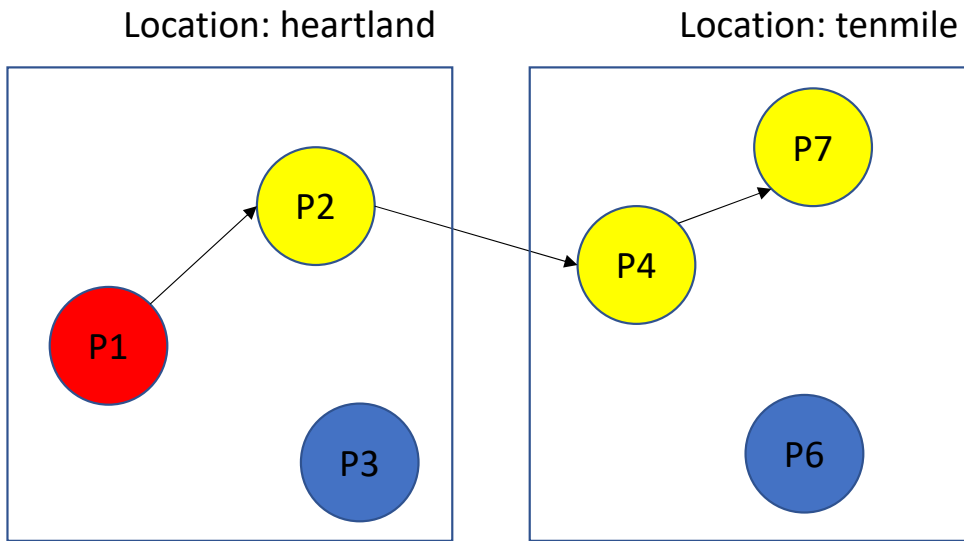Red Circle(covid patient):
Covid = true; Warning = true

Yellow Circle(close contact):
Covid = false; Warning = true

Blue Circle(Nothing):
Covid = false; Warning = false

Path Finding

Location: heartland

Location: tenmile

#Just a thought

As for timestamp, we can implement if the person check into another location, we just update its previous locationtag this new timestamp that he checkout the same time he check in to this new location.

Tracing 1 covid patient and its close contact members

Should lookup on:

1. persontag *#to check if he is covid patient, close contact or nothing.*
2. locationtag *#check location he been*
3. timestamp *#the time range he infected*
4. token1 *#id of the patient and the members he might affect to.*
   1. personid *#their particulars to alert them*
   2. phonenumber
5. btsignal2 *#if the person satisfy the closecontact condition(less then 10m & more then 10 min contact time). It will be updated in the array. 1 means yes and 0 means no.*

We can also trace them! When btsignal2 returns 1, it can take token1 id and append in an array when iterating through this lookup array(by order). Hence, we can tracetgt!

Visit Window
Location: heartland

12 hours before the covid visit window

Date	09/03/2020										10/03/2020								Covid visit window					
Per	2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
P1																								
P2																								
P3																								
P4																								
P5																								
P6																								
P7																								

Location: tenmile

Date	09/03/2020										10/03/2020								Covid visit window					
Per	2300	2400	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
P1																								
P2																								
P3																								
P4																								
P5																								
P6																								
P7																								