Test cases

1. Black Box Testing

Height and Weight input test
To calculate user's BMI, we ask users to input their height and weight. Acceptable Height rage is 50-250cm and acceptable Weight range is 10-250 kg.

Password Length Input Test Valid
length is 8-20.

1.1 Equivalence class

	Valid input	Invalid input
Height(cm)	50-250	<=49& >=251
Weight(kg)	10-250	<=9 & >=251

	Valid input	Invalid input
Password length	8-20	0-7 & >=21

1.2 Boundary Values 1.2.1 Height Valid:

Upper Bondary:~~249~~ 250 251
Lower Bondary:49 50 ~~51~~

1.2.2 Weight
Upper Boundary:~~249~~ 250 251
Lower Boundary:9 10 ~~11~~

1.2.3 Password length
Valid：
Upper Boundary：~~19~~ 20 21
Lower Boundary：7 ~~8 9~~

1.3 Test cases
1.3.1 Height and Weight Both valid

	Height Input	Weight Input	Expected Output	Actual Output
1	250	250	Accept	Accept
2	250	10	Accept	Accept
3	50	250	Accept	Accept
4	50	10	Accept	Accept

1.3.2 Height Invalid+ Weight Valid

	Height Input	Weight Input	Expected Output	Actual Output
1	251	250	Reject	Reject
2	251	10	Reject	Reject
3	49	250	Reject	Reject
4	49	10	Reject	Reject

1.3.3 Height Valid + Weight Invalid

	Height Input	Weight Input	Expected Output	Actual Output
1	250	251	Reject	Reject
2	250	9	Reject	Reject
3	50	251	Reject	Reject
4	50	9	Reject	Reject

1.3.4 Password invalid

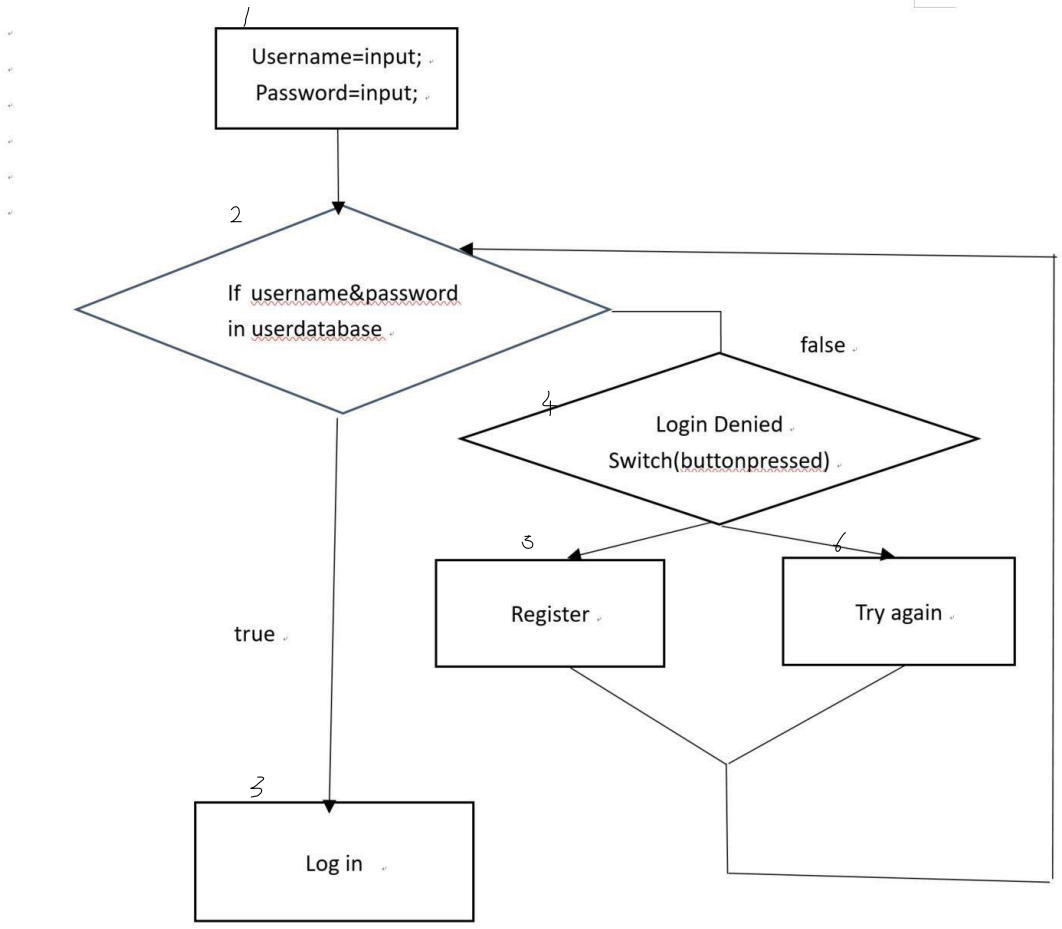
	Input	length	Expected output	Actual output
1		0	Reject	Reject
2	jahfuqi	7	Reject	Reject
3.	Hjiw38hy75ji0ok5tsh34	21	Reject	Reject

1.3.5 Password valid

	Input	length	Expected output	Actual output
1	Jagtyqi3	8	Accept	Accept
2.	221338hy7dfg5091th34	20	Accept	Accept

2 White Box Testing

2.1 User login



Basis path calculation=2+1=3;

	1	2	3
Basis Path	1,2,3	1,2,4,5,2,3	1,2,4,6,2,3
Test Input	nic@126.com $2$10$zY*…*	fiffufuf@cjcj $2y$10$5AZ7*…*	hwohsh@hohw $2y$10$aetc*…* 123@gmail.com $2y$10$Ketc*…*
Expected Output	Logged in	Denied-RegisteredLogged in	Denied-Logged in
Actual Output	Logged in	Denied-RegisteredLogged in	Denied-Logged in

2.2 Path design and track

Control Flow diagram is in next page

Basis path calculation=3+1=4 (Mylocation is from hall14)

	1	2	3	4
Basis Path	1,2,3,5,6,7,8,6,10	1,2,3,5,6,10	1,2,3,5,6,7,8,9 ,5,6,10	1,2,4,5,6,7,8,6,10
Test Input	Start=Mylocation Destination= LWN library	Start=Mylocation Destination= copy+paste Start	Start=Mylocation Destination= LWN library	Start=NTU Block N4 Destination= LWN library
Expected Output	step=900-1200	step=0	step=2000 2400(since I walked to LKC then come back again)	Step=250-300
Actual Output	step=991	step=0	step=2237	Step=276

Start will be current location sensed by GPS or user type in.

Pedometer and GPS will update step and location information.