

Methods and Key Variable for Part a of the program :

Name	Method/Variable	Purpose of the method/variable
Floor	Variable	It is an input function or the user to input the number of floors they wish to have in the building
Lift	Function	This function is used for deciding which lift should reach the user according to the floor they currently are on
No_of_people	Variable	This variable prints random number of people present in the lift when the user calls it between 0 – 10
Lift_1	Variable	This variable prints the position of lift on random floors between 1 and the number of floors in the building
Lift_2	Variable	This variable prints the position of lift on random floors between 1 and the number of floors in the building
Current_floor	Variable	This variable allows the user to input the floor they are currently on and therefore allowing them to choose what floor they wish to call the lift
Current_position1	Variable	This variable is used in case the user inputs a floor that does not exist in the current floor variable this is used after the check is performed and user has one more opportunity to call the lift on a correct floor
Time_to_reach	Function	This function is used to do the calculation required to calculate the time the lift would take to reach the current floor the user is on
Call	Variable	This variable is used to

Methods and Key Variable for Part b of the program :

Name	Method/Variable	Purpose of the method/variable
Wait_time_1	Variable	This is an empty list used later to append the value of waiting time for lift_1, and then sum it
Wait_time_2	Variable	This is an empty list used later to append the value of waiting time for lift_2, and then sum it
Floor	Variable	It is an input function or the user to input the number of floors they wish to have in the building
Travel_speed_1	Variable	This variable allows the user to enter at what speed do they wish for the lift to travel so as to let the user decide
Travel_speed_2	Variable	This variable allows the user to enter at what speed do they wish for the lift to travel so as to let the user decide
Lift	Function	This function calculates the waiting time for both the lifts to arrive to the current floor
Time_to_reach	Function	This function helps to calculate the time taken to reach the destination floor
Lift_1	Variable	This variable prints the position of lift on random floors between 1 and the number of floors in the building
Lift_2	Variable	This variable prints the position of lift on random floors between 1 and the number of floors in the building
Current_floor	Variable	This variable prints the position of the floor the user is on randomly between 1 and the number of floors in the building
Reach_position	Variable	This variable prints the position of the floor the user is on randomly between 1 and the number of floors in the building
Sum_of_wait_travel_time_1	Variable	This gives the total value of waiting time by lift 1 in the 1000 times the program has been run
Sum_of_wait_travel_time_2	Variable	This gives the total value of waiting time by lift 2 in the 1000 times the program has been run
Average_wait_time_1	Variable	This gives the average of the total wait time of lift 1
Average_wait_time_2	Variable	This gives the average of the total wait time of lift 2