**PROJECT: Recommend a Canteen**

Assessment Criteria:

1. Use of Pattern recognition (10)

2. Use of Abstraction (10)

3. Use of decomposition (10)

4. Algorithm Design (20)

5. User Interface Design (10)

6. System Complexity (10)

7. Teamwork & Presentation (10)

8. Individual Oral Assessment (20)

9. Others (Optional)

**Initialize With:**

import pygame

def display\_map():

introScreenImage = pygame.image.load("NTU campus.png")

screen = pygame.display.set\_mode((900,700))

screen.blit(introScreenImage,(0,0))

pygame.display.flip()

#main program

|  |  |
| --- | --- |
| **get\_user\_location ()** | Get user location either though console input or mouse click |
| **distance\_a\_b (location\_of\_a, location\_of\_b)** | The function calculate the distance between two points. |
| **sort\_distance(user\_location, canteens\_location)** | Display the sorted distances from user’s current location to each canteen in ascending order. |
| **search\_by\_food(foodname, foodlist\_canteens)** | Search all canteens to return the canteen with wanted food |
| **sort\_by\_rank(ranklist\_canteens)** | Display the canteens by rank |
| **Search\_by\_price(price, foodlist\_canteens)** | Search all canteens to return the food within the searched range |
| **Mouseclick()** | To return coordinate of a mouseclick |
| **Update\_information()\*** | Optional: allow use to update information of each canteen |
| **transport (user\_location, dest\_location)\*** | Optional: allow use to get transport information from current location to the destination |

pygame.init()

display\_map()

#End

**Required Functions to Implement**