**PROJECT TITLE: AN APPLICATION FOR**

**OPENING COFFEE SHOP**

**PROJECT TEAM: 07**

**def** set cover(universe, subsets):  
 elements = set(e **for** s **in** subsets **for** e **in** s)  
 **if** elements != universe:  
 **return None** covered = set()  
 cover = []  
 **while** covered != elements:  
 subset = max(subsets, key=**lambda** s: len(s - covered))  
 cover.append(subset)  
 covered |= subset  
  
 **return** cover  
  
  
**def** main():  
 all\_sets = []  
 sub\_set = set()  
 print(**"ENTER THE LOWER RANGE OF ELEMENTS:"**)  
 a = int(input())  
 print(**"ENTER THE HIGHER RANGE OF ELEMENTS:"**)  
 b = int(input())  
 universe = set(range(a, b))  
 print(**"ENTER THE NUMBER OF SUB-SETS:"**)  
 size = int(input())  
 **for** i **in** range(size):  
 print(**"ENTER THE SIZE OF SUB-SET:"**)  
 n = int(input())  
 **for** j **in** range(n):  
 print(**"ENTER THE ELEMENT INTO SUBSET:"**)  
 element = int(input())  
 sub\_set.add(element)  
 all\_sets.append(sub\_set)  
 **continue** cover = set\_cover(universe, all\_sets)  
 print(**"HERE IS THE SUB-SET WHICH COVERS MAXIMUM ELEMENTS:"**)  
 print(all\_sets[1])  
  
**if** \_\_name\_\_ == **'\_\_main\_\_'**:  
 main()