import redis  
  
client = redis.Redis(host='localhost', port=6379)  
  
  
def Nav():  
 print("+" + "-" \* 8 + "+" + "-" \* 35 + "+" + "-" \* 16 + "+")  
 print("| ITEM |" + " " \* 12 + "DESCRIPTION" + " " \* 12 + "|" + " STATUS |")  
 print("+" + "-" \* 8 + "+" + "-" \* 35 + "+" + "-" \* 16 + "+")  
 print("| 1 |" + " " \* 1 + "Showing 1-100 that contains Fizz" + " " \* 2 + "|" + " Not started |")  
 print("| |" + " " \* 1 + "Buzz ,FizzBuzz mixed" + " " \* 14 + "|" + " " \* 16 + "|")  
 print("+" + "-" \* 8 + "+" + "-" \* 35 + "+" + "-" \* 16 + "+")  
 print("| 2 |" + " " \* 1 + "Consider it's a leap year or not " + " " \* 1 + "|" + " Not started |")  
 print("+" + "-" \* 8 + "+" + "-" \* 35 + "+" + "-" \* 16 + "+")  
 print("| 3 |" + " " \* 1 + "Show \* in many ways" + " " \* 15 + "|" + " Not started |")  
 print("| 3.1 |" + " " \* 4 + "Format 1 " + " " \* 22 + "|" + " Not started |")  
 print("| 3.2 |" + " " \* 4 + "Format 2 " + " " \* 22 + "|" + " Not started |")  
 print("| 3.3 |" + " " \* 4 + "Format 3 " + " " \* 22 + "|" + " Not started |")  
 print("| 3.4 |" + " " \* 4 + "Format 4 " + " " \* 22 + "|" + " Not started |")  
 print("| 3.5 |" + " " \* 4 + "Format 5 " + " " \* 22 + "|" + " Not started |")  
 print("| 3.6 |" + " " \* 4 + "Format 6 " + " " \* 22 + "|" + " Not started |")  
 print("+" + "-" \* 8 + "+" + "-" \* 35 + "+" + "-" \* 16 + "+")  
 print("| 4 |" + " " \* 1 + "Difference else and finally " + " " \* 5 + "|" + " Not started |")  
 print("+" + "-" \* 8 + "+" + "-" \* 35 + "+" + "-" \* 16 + "+")  
 print("| 5 |" + " " \* 1 + "Medium 1. finds all prime numbers " + "|" + " Not started |")  
 print("+" + "-" \* 8 + "+" + "-" \* 35 + "+" + "-" \* 16 + "+")  
 print()  
 print("\*\*\*Enter number to select item or entering a blank to end program\*\*\*")  
  
  
Nav()  
  
  
def item1():  
 ListOfNumber = list(range(1, 101))  
 for i in range(1, 101):  
 if i % 3 == 0 and not i % 5 == 0:  
 ListOfNumber[i - 1] = "Fizz"  
 elif i % 5 == 0 and not i % 3 == 0:  
 ListOfNumber[i - 1] = "Buzz"  
 elif i % 3 == 0 and i % 5 == 0:  
 ListOfNumber[i - 1] = "FizzBuzz"  
 print(\*ListOfNumber)  
  
  
def item2(year):  
 status = []  
 if year % 400 == 0:  
 status = True  
 elif year % 400 != 0 and year % 100 != 0 and year % 4 == 0:  
 status = True  
 else:  
 status = False  
 print(str(year) + " is leap year -> " + str(status))  
  
  
def item3\_1(Number):  
 for i in range(1, Number + 1):  
 print('\*' \* i)  
  
  
def item3\_2(Number):  
 for i in range(1, Number + 1):  
 print(' ' \* (Number - i) + '\*' \* i)  
  
  
def item3\_3(Number):  
 print(" " \* Number + "\*")  
 for i in range(1, Number):  
 print(" " \* (Number - i), end="")  
 print("\*", end="")  
 for j in range(1, i \* 2):  
 print(" ", end="")  
 print("\*")  
  
  
def item3\_4(Number):  
 tag = 0  
 if (Number + 1) % 2 != 0:  
 Number = Number - 1  
 tag = 1  
 algo = int(((Number + 1) / 2) - 1)  
 for i in range(1, (Number - algo)):  
 print(" " \* (i - (algo - (algo - 1))), end="")  
 print("\*", end="")  
 for j in range(1, (((Number - algo - i) \* 2) + tag)):  
 print(" ", end="")  
 print("\*")  
 if tag == 1:  
 print(" " \* algo + "\*\*")  
 print(" " \* algo + "\*\*")  
 else:  
 print(" " \* algo + "\*")  
 for i in range(1, (Number - algo)):  
 print(" " \* (algo - i), end="")  
 print("\*", end="")  
 for j in range(1, (i \* 2) + tag):  
 print(" ", end="")  
 print("\*")  
  
  
def item3\_5(Number):  
 Number = Number + 2  
 tag = 0 # 0:odd ,1 :even  
 if (Number + 1) % 2 != 0:  
 tag = 1  
 for i in range(1, Number - tag):  
 if (float(i) % 2) != 0:  
 print(" " \* (int((Number - i) / 2) - 1), end="")  
 print("\*" \* i, end="")  
 print(" ")  
 for i in range(3, Number):  
 if (float(i + tag) % 2) == 0:  
 print(" " \* (int(i / 2) - 1), end="")  
 print("\*" \* (Number - i), end="")  
 print(" ")  
  
  
def item3\_6(Number):  
 for i in range(0, Number):  
 for j in range(1, Number - i):  
 print("A", end="")  
 print("+", end="")  
 if i > 0:  
 for j in range(0, (i \* 2) - 1):  
 print("E", end="")  
 print("+", end="")  
 for j in range(1, Number - i):  
 print("B", end="")  
 print(" ")  
  
 for i in range(0, Number - 1):  
 for j in range(1, i + 2):  
 print("C", end="")  
 print("+", end="")  
 for j in range(0, ((Number - i - 2) \* 2) - 1):  
 print("E", end="")  
 if i < Number - 2:  
 print("+", end="")  
 for j in range(1, i + 2):  
 print("D", end="")  
 print(" ")  
  
  
def item5(Number):  
 NumberList = list(range(2, Number + 1))  
 i = 0  
 j = 1  
 while i < len(NumberList):  
 while j < len(NumberList) - i:  
 if (NumberList[j + i] % NumberList[i]) == 0:  
 NumberList.remove(NumberList[j + i])  
 j -= 1  
 j += 1  
 j = 1  
 i += 1  
 print(NumberList)  
  
  
def printitem2():  
 x = client.llen('item2')  
 for i in range(0, int(x)):  
 x = client.lindex('item2', i)  
 print(str(i + 1) + "). ", end="")  
 item2(int(x))  
  
  
def printitem3\_1():  
 x = client.llen('item3\_1')  
 for i in range(0, int(x)):  
 x = client.lindex('item3\_1', i)  
 print(str(i + 1) + "). ")  
 item3\_1(int(x))  
  
  
def printitem3\_2():  
 x = client.llen('item3\_2')  
 for i in range(0, int(x)):  
 x = client.lindex('item3\_2', i)  
 print(str(i + 1) + "). ")  
 item3\_2(int(x))  
  
  
def printitem3\_3():  
 x = client.llen('item3\_3')  
 for i in range(0, int(x)):  
 x = client.lindex('item3\_3', i)  
 print(str(i + 1) + "). ")  
 item3\_3(int(x))  
  
  
def printitem3\_4():  
 x = client.llen('item3\_4')  
 for i in range(0, int(x)):  
 x = client.lindex('item3\_4', i)  
 print(str(i + 1) + "). ")  
 item3\_4(int(x))  
  
  
def printitem3\_5():  
 x = client.llen('item3\_5')  
 for i in range(0, int(x)):  
 x = client.lindex('item3\_5', i)  
 print(str(i + 1) + "). ")  
 item3\_5(int(x))  
  
  
def printitem3\_6():  
 x = client.llen('item3\_6')  
 for i in range(0, int(x)):  
 x = client.lindex('item3\_6', i)  
 print(str(i + 1) + "). ")  
 item3\_6(int(x))  
  
  
def printitem5():  
 x = client.llen('item5')  
 for i in range(0, int(x)):  
 x = client.lindex('item5', i)  
 print(str(i + 1) + "). ")  
 item5(int(x))  
  
  
def algoform(printitem, strtopic, strdata, strtopic2):  
 printitem()  
 select = input("Enter a number (1 to Add,2 to Delete) ,entering a blank to main program): ")  
 backNav = 0  
 while backNav == 0:  
 if select == "1":  
 cont = 1  
 while cont == 1:  
 Number = input(  
 "Enter a number to " + strtopic + "or entering a blank to main program : ")  
 if Number.isdigit():  
 client.rpush(strdata, Number)  
 printitem()  
 print(strtopic2 + " Completed")  
 elif Number.isalpha():  
 print(Number, "is Wrong input !")  
 else:  
 Nav()  
 cont = 2  
 backNav = 1  
 elif select == "2":  
 cont = 2  
 while cont == 2:  
 selectsubitem = input(" +" + "-" \* 13 + "Enter option to delete" + "-" \* 13 + "+\n"  
 " |1:delete last one | 2:select index to delete |\n "  
 "|3:delete all | 4:show data |\n"  
 " or entering a blank to main program :")  
 if selectsubitem == "1":  
 client.rpop(strdata)  
 printitem()  
 print("delete complete")  
 elif selectsubitem == "2":  
 x = client.llen(strdata)  
 selectlredis = input("Enter number of item :")  
 if selectlredis.isdigit() and x >= int(selectlredis):  
 value = client.lindex(strdata, str(int(selectlredis) - 1))  
 client.lrem(strdata, str(int(selectlredis) - 1), value)  
 printitem()  
 print("delete complete")  
 else:  
 print("index " + selectlredis + " don't have data")  
 elif selectsubitem == "3":  
 x = client.llen(strdata)  
 for i in range(0, int(x)):  
 client.rpop(strdata)  
 printitem()  
 print("delete complete")  
 elif selectsubitem == "4":  
 printitem()  
 elif selectsubitem.isdigit() or selectsubitem.isalpha():  
 print(selectsubitem, "is Wrong input !")  
 else:  
 Nav()  
 cont = 1  
 backNav = 1  
 elif select.isdigit() or select.isalpha():  
 print(select, "is Wrong input !")  
 select = input("Enter a number (1 to Add,2 to Delete ,entering a blank to main program): ")  
 else:  
 Nav()  
 break  
  
  
def SelectItem(item):  
 while True:  
  
 if item == "1":  
 backNav = 0  
 while backNav == 0:  
 item1()  
 input("Press Enter to main program:")  
 backNav = 1  
 Nav()  
 elif item == "2":  
 algoform(printitem2, "check leap yeap", "item2", "cal leap year")  
 elif item == "3.1":  
 algoform(printitem3\_1, "Show \* Format 1 ", "item3\_1", "Add \* Format 1 ")  
 elif item == "3.2":  
 algoform(printitem3\_2, "Show \* Format 2 ", "item3\_2", "Add \* Format 2 ")  
 elif item == "3.3":  
 algoform(printitem3\_3, "Show \* Format 3 ", "item3\_3", "Add \* Format 3 ")  
 elif item == "3.4":  
 algoform(printitem3\_4, "Show \* Format 4 ", "item3\_4", "Add \* Format 4 ")  
 elif item == "3.5":  
 algoform(printitem3\_5, "Show \* Format 5 ", "item3\_5", "Add \* Format 5 ")  
 elif item == "3.6":  
 algoform(printitem3\_6, "Show \* Format 6 ", "item3\_6", "Add \* Format 6 ")  
 if item == "4":  
 backNav = 0  
 while backNav == 0:  
 print("\nข้อแตกต่างของ 'else' กับ 'finally' คือ \n"  
 "else จะถูกทำงานเมื่อคำสั่งใน try block ไม่มีข้อยกเว้น \n"  
 "finally ทำงานโดยไม่สนว่าข้อความใน try block ล้มเหลวหรือประสบความสำเร็จ\n"  
 "try , except หากมีการ error ใน try จะข้ามไปทำคำสั่งใน except ต่อ\n"  
 "เช่น \n"  
 "try : x = x+3 \n"  
 "except : x = 4+4 \n"  
 "else : print('else'+x) \n"  
 "finally: print('finally'+x) \n"  
 "จะเห็นว่า ใน try error ทำให้ใน else ไม่ทำงาน แต่ใน finally ทำงาน\n"  
 "ผลลับจึงออกมาเป็น finally8\n")  
 input("Press Enter to main program:")  
 backNav = 1  
 Nav()  
 elif item == "5":  
 algoform(printitem5, "finds all prime number ", "item5", "finds prime number")  
 elif item.isdigit() or item.isalpha():  
 print()  
 elif item == " ":  
 print("thank you for use program.")  
 break  
  
 item = input("Please Enter Item number (1,2,4,5 or 3.1-3.6): ")  
  
  
SelectItem(input("Please Enter Item number (1,2,4,5 or 3.1-3.6): "))