Practical 1

def accept\_args(s,pl):

x=int(input("Enter the total no of students play %s:" %pl))

for i in range(x):

name=input("Enter name of %d student who play %s:" %((i+1),pl))

s.append(name)

def show(s,pl):

print(" ")

print("student who play %s:" %pl)

for i in range (len(s)):

print (s[i],end=" ")

def search\_set(s,pl):

a=len(s)

for i in range(a):

if(s[i]==pl):

return(1)

return(0)

def find\_intersection\_set(x,y,z):

for i in range(len(x)):

flag=search\_set(y,x[i])

if(flag==1):

z.append(x[i])

def find\_different\_set(x,y,z):

for i in range(len(x)):

flag=search\_set(y,x[i])

if(flag==0):

z.append(x[i])

def find\_union\_set(x,y,z):

for i in range(len(x)):

z.append(x[i])

for i in range(len(y)):

flag=search\_set(x,y[i])

if(flag==0):

z.append(y[i])

def main():

cri=[]

bad=[]

ftb=[]

while True:

print("\t1=Accept the information")

print("\t2=List of students who play both cricket and badmintan:")

print("\t3=List of students who play either cricket or badminton but not both:")

print("\t4=Number of student who play neither cricket nor badminton:")

print("\t5=Number of students who play cricket and football but not badminton:")

print("\t6=Exit")

ch=int(input("Enter your choice:"))

res=[]

if(ch==6):

print("Thank You!!")

break

elif(ch==1):

accept\_args(cri,"cricket")

accept\_args(bad,"badmintan")

accept\_args(ftb,"football")

show(cri,"cricket")

show(bad,"badmintan")

show(ftb,"football")

elif(ch==2):

show(cri,"cricket")

show(bad,"badmintan")

find\_intersection\_set(cri,bad,res)

show(res,"both cricket and badmintan")

elif(ch==3):

show(cri,"cricket")

show(bad,"badmintan")

res1=[]

find\_union\_set(cri,bad,res1)

res2=[]

find\_intersection\_set(cri,bad,res2)

find\_different\_set(res1,res2,res)

show(res,"either cricket or badminton but not both")

elif(ch==4):

show(cri,"cricket")

show(bad,"badmintan")

show(ftb,"football")

res1=[]

find\_union\_set(cri,bad,res1)

find\_different\_set(ftb,res1,res)

show(res,"neither cricket nor badminton")

print("No of students who play neither cricket nor badminton=%s" %len(res))

elif(ch==5):

show(cri,"cricket")

show(bad,"badmintan")

show(ftb,"football")

res1=[]

find\_intersection\_set(cri,ftb,res1)

find\_different\_set(res1,ftb,res)

show(res,"cricket and football but not badminton")

print("Number of students who play cricket and football but not badminton=%s" %len(res))

else:

print("Try again")

main()

output

