**ASSIGNMENT 4**

**PROGRAMMING FUNDAMENTALS**

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**TASK 1:**

#include<iostream>

#include<fstream>

#include<conio.h>

#include<string>

using namespace std;

string even\_or\_odd (int num1,int num2)

{

if(num1%2==0&&num2%2==0)

{

return "Even\_file.txt";

}

else if(num1%2!=0&&num2%2!=0)

{

return "Odd\_file.txt";

}

else if((num1%2!=0&&num2%2==0)||(num1%2==0&&num2%2!=0))

{

return "Odd\_Even\_file.txt";

}

}

void savedatainfile (int num1,int num2, string str)

{

ofstream output;

output<<num1<<" "<<num2<<endl;

output.open(str,ios::app);

output<<num1<<" "<<num2<<endl;

}

void break\_num (int num)

{

string str;

int num2;

for(int m=1;m<=(num/2);m++)

{

num2=num-m;

str=even\_or\_odd(m,num2);

savedatainfile(m,num2,str);

}

}

void main()

{

int no;

cout<<"Enter a number for BREAK: ";

cin>>no;

break\_num(no);

system("pause");

getch();

**TASK 2:**

#include<iostream>

#include<conio.h>

using namespace std;

void main()

{

int lock;

int counter=0,open;

cout<<"Please Enter the Total number of lockers are in the school?"<<endl;

cin>>lock;

open=lock/2;

for(int i=3;i<=lock;i++)

{

for(int j=i;j<=lock;j=j+i)

{

for(int k=2;k<i;k++)

{

if(j%k==0)

{

counter++;

}

}

if(counter%2==0||counter==0)

{

open--;

}

else if(counter%2!=0||counter==1)

{

open++;

}

}

}

cout<<"Opened locks are: "<<open<<endl;

system("pause");

getch();

}