```cpp
#include<iostream>
#include<string.h>
#include<math.h>
using namespace::std;
//Bloom Filter Functions
int h1(string s, int arrSize)
{
 int hash = 0;
 for(int i=0;i<s.size();i++)
 {
 hash = hash + (int(s[i]));
 hash = hash % arrSize;
 }
 return hash;
}
int h2(string s, int arrSize)
{
 int hash = 1;
 for(int i=0;i<s.size();i++)
 {
 hash = hash + (i*int(s[i]));
 hash = hash % arrSize;
 }
 return hash;
}
int h3(string s, int arrSize)
{
 int hash = 2;
 for(int i=0;i<s.size();i++)
 {
 hash = hash + pow(19,i);
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  hash = hash % arrSize;

 }

 return hash;

}

void insert(int bfilter[10], string name, int arrSize)

{

 int a = h1(name,arrSize);

 int b = h2(name,arrSize);

 int c = h3(name,arrSize);


 if(bfilter[a]==1 && bfilter[b]==1 && bfilter[c]==1)

 {

 cout<<"\nThe Name is Probably Present !!";

 }

 else

 {

 bfilter[a] = 1;

 bfilter[b] = 1;

 bfilter[c] = 1;


 cout<<name<<" is inserted !!";

 }

}

//Cuckoo Filter Functions

int hash1(int num, int arrSize)

{

 int h1=0;

 h1 = num%arrSize;

 return h1;

}

int hash2(int num, int arrSize)
```

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{
 int h2 = 0;
 h2 = ((num/arrSize)%arrSize);
 return h2;
}
void printHash(int cfilter1[10],int cfilter2[10],int arrSize)
{
 cout<<endl<<"\nHashtable 1 : ";
 for(int i = 0;i<arrSize;i++)
 {
 cout<<cfilter1[i]<<" | ";
 }
 cout<<endl<<"\nHashtable 2 : ";
 for(int i = 0;i<arrSize;i++)
 {
 cout<<cfilter2[i]<<" | ";
 }
 cout<<endl;
}
void insertC(int cfilter1[10],int cfilter2[10],int num, int arrSize)
{
 int a = hash1(num,arrSize);
 if(cfilter1[a] == -1)
 {
 cfilter1[a] = num;
 }
 else
 {
 int temp;
 temp = cfilter1[a];
 cfilter1[a] = num;
```

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int b = hash2(temp,arrSize);

if(cfilter2[b] == -1)

{

cfilter2[b] = temp;

}

else

{

insertC(cfilter1,cfilter2,temp,arrSize);

}

}

printHash(cfilter1,cfilter2,arrSize);

}

int main()

{

int opt;

do

{

cout<<"\nWhich Filter Do You Want To Choose\n(1)Bloom Filter\n(2)Cuckoo Filter\n(0)Exit\nEnter
Your Choice --> ";

cin>>opt;

if(opt==1)

{

int bfilter[10],choice;

string name;

for(int i=0;i<10;i++)

{

bfilter[i]=0;

}

do

{

cout<<"\nEnter The name you Want To Insert : ";
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cin>>name;

insert(bfilter,name,10);

cout<<"\nDo You Want to insert another name(1/0) : ";

cin>>choice;

}while(choice!=0);

}

else if(opt==2)

{

int cfilter1[10],cfilter2[10],num,choice;

for(int i=0;i<10;i++)

{

cfilter1[i] = cfilter2[i] = -1;

}

do

{

cout<<"\nEnter A number to be inserted : ";

cin>>num;

insertC(cfilter1,cfilter2,num,10);

cout<<"\nDo you want to insert more numbers(1/0) : ";

cin>>choice;

}while(choice!=0);

}

else if(opt==0)

{

break;

}

else

{

cout<<"Invalid Input!!!";

}

}while(opt!=0);
```

}