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Purpose: Project 2

```
#include <iostream> //I/O Library
#include <cstdlib> //Random number
generator
#include <iomanip> //Formats output
#include <cmath> //Math library
#include <ctime> //Time Library
#include <string> //String Library
#include <fstream> //File Input/Output
```

Global Constants
None

User Libraries
#include "User.h"
#include "Dealer.h"
#include "Cards.h"
#include "CopyClass.h"
#include "Players.h"

Function Prototypes
void dlrHnd (string [], CardInfo [], int [], int , bool, int &, int &, Dealer &, unsigned char =0); //Gets dealer's hand
void HorF (string [], CardInfo [], int &, int, bool, User &, int []); //Asks player to hit/fold
bool checkAce (unsigned char &, bool , User); //Player check ace function
bool linSrch (string [], int [], int [], int , int); //Linear Search Function
bool checkAceDlr (unsigned char &, bool , int); //Dealer checkAce function
unsigned char rndmNum(unsigned char); //Finds random number
void SISort(int [], int); //Sorts the array
int *Fill (int [], int); //creates and fills array
void PrintHand(int *, int, CardInfo []); //Prints users hand
string ReadFile(fstream &input);

main

```
srand(static_cast<unsigned
int>(time(0)));
```

```
Declare all Variables
User player[2];
User *p1ptr;
p1ptr=nullptr;
p1ptr=&player[0];
player[0].hand=0;
const unsigned char nCards=52;
unsigned char rawnum=0;
int cardnum1=1,
cardnum2=1,dlrhand, crdnms1[10],
crdnms2[10];
unsigned int hand=0;
float bet;
string allcards[nCards],
cards[nCards], string name, string
dlr[nCards], string winner,
rsltOut="results.dat", cardIn,
fileName;
bool ace=false;
fstream input, out, binName;
string cardIn,
fileName="card.dat",
nameIn ="name.dat";
User player; //Player and dealer
Dealer dealer(dName, 0);
CardInfo crdsfile[nCards];
```

```
input.open
(fileName.c_str(),ios::in);
```

```
int i=1;
```

```
i++;
```

```
i<=nCards
```

False

```
input.close();
```

```
nmrdin=ReadFile(input);
```

```
string namerdin;
```

```
input.open("name.dat", ios::in);
getline(input, namerdin);
input.close();
```

```
return namerdin;
```

```
input>>cardIn;
crdsfile[i].setCardNum(i);
crdsfile[i].setCardName(cardIn);
```

```
int l=0;
```

```
i<nmrdin
.length()
```

false

```
i++;
```

```
player[0].name[i]=&nmrdin[i];
```

All card names are read into

```
cout<<"Welcome, "
<<*player[0].name<<". "<<endl;
```

Page 2

Page 2

drawing card one
and two

```
rawnum=rdmNum(nCards);  
crdnm1ptr[cardnum1]=rawnum;  
cards[cardnum1]=allcards[rawnum];  
rawnum=rawnum%13;
```

```
ace=checkAce;  
//Checks to see if player  
has an ace card
```

True

while (cardnum1<2)

False

if
(player[0].hand
==21)

False

```
HorF(cards, allcards,  
cardnum1, nCards,  
ace, player, crdnms1)
```

ace=false;

```
player[1]=dlrHnd  
(dlr, allcards, crdnms2,  
nCards, ace,  
cardnum2, dlrhand,  
rawnum)
```

```
unsigned char decide;  
unsigned char rawnum=0;
```

Asks User if they would
like to hit or fold

if (static_cast
(decide
=='h'))

true

decide-=32

false

cardnum1=3

decide=='H' &&
hand<21

true

```
rawnum=rdmNum(nCards);  
crdnms1[cardnum1]=rawnum;  
cards[cardnum1]=allcards[rawnum];  
rawnum=rawnum%13;
```

ace=checkAce

cardnum1++;

asks player if they
would to hit or fold

True

if (hand<21)

False

Page 3

output players card and
sum of their hand

True

if (rawnum==0||rawnum==11||
rawnum==12||rawnum==13)

False

True

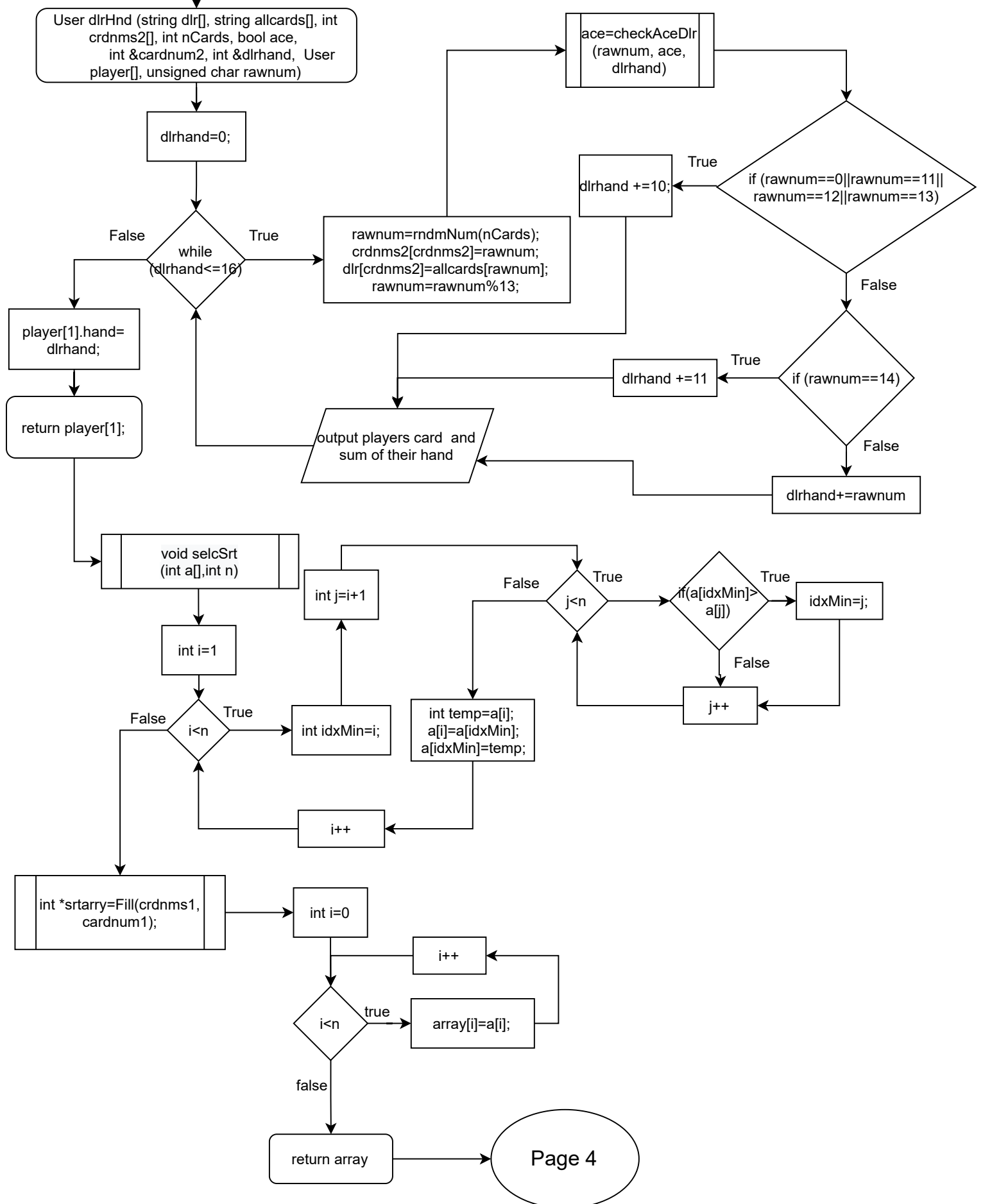
if (rawnum==14)

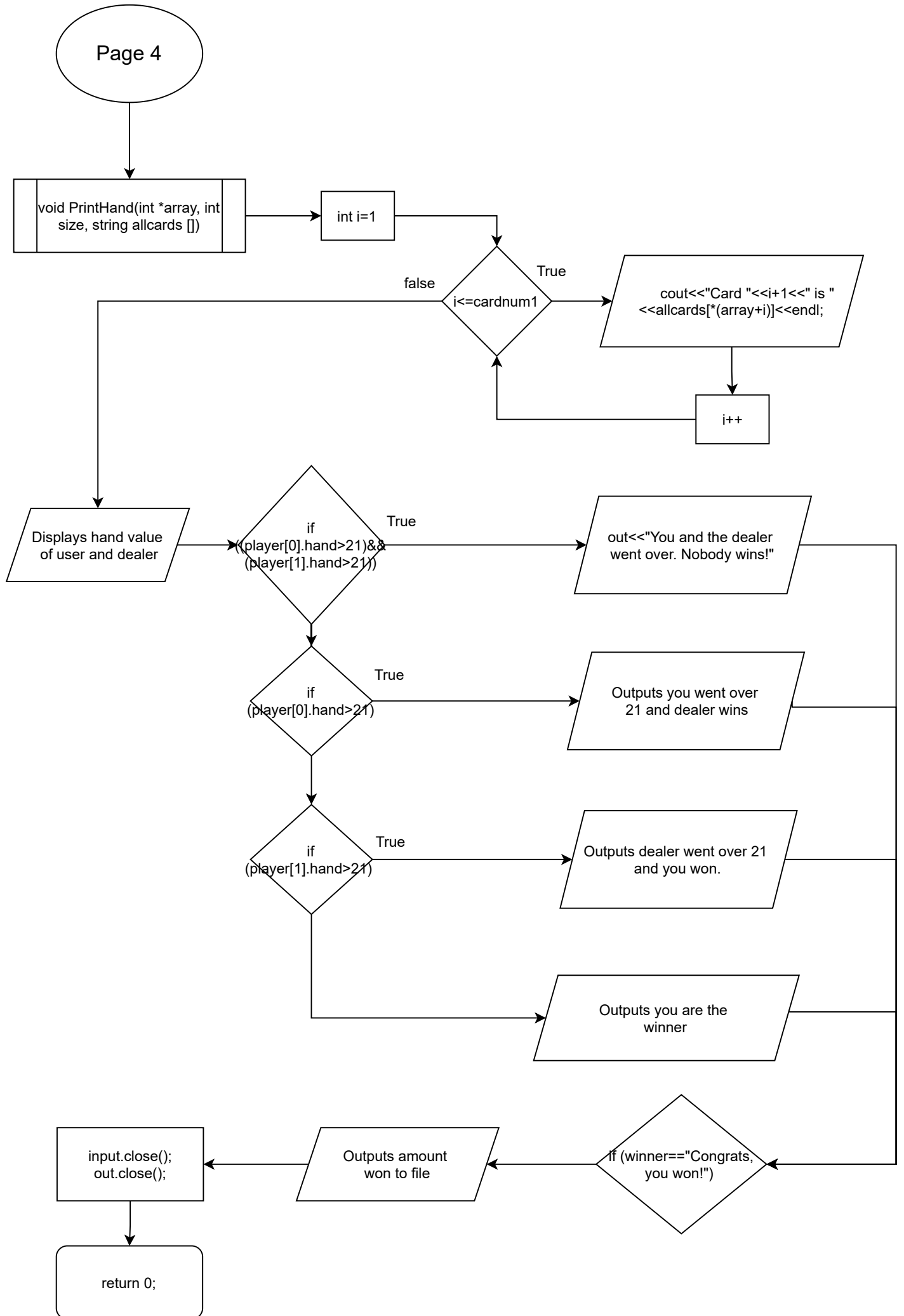
False

hand+=rawnum

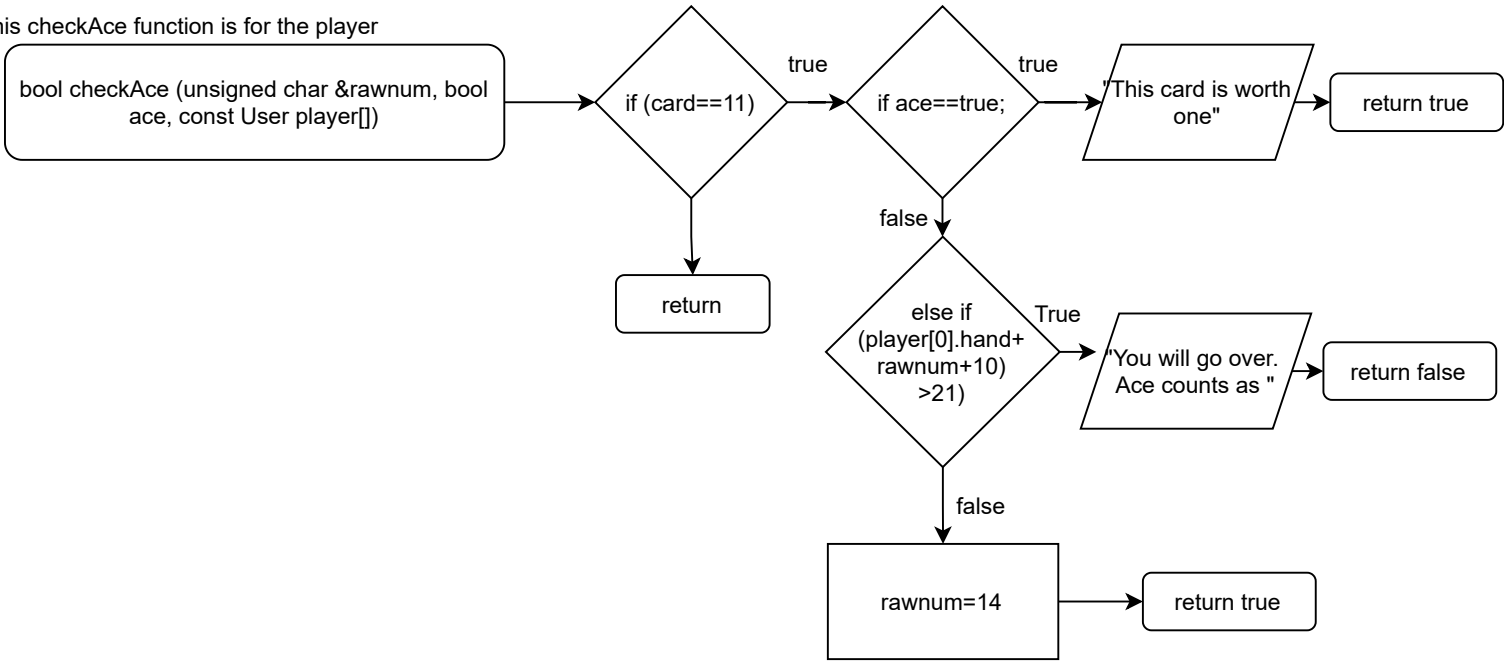
hand+=11

hand+=10;





This checkAce function is for the player



This checkAce function is for the Dealer

