

```
/*
```

```
Algorithms 9/28/18
```

```
Project #2 card.h file
```

```
Flipcard Game
```

```
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```
Group ID: DAVMATNEW
```

```
*/
```

```
#include
```

```
#include
```

```
#include
```

```
#include
```

```
#include
```

```
using namespace std;
```

```
#ifndef CARD_H
```

```
#define CARD_H
```

```
class card
```

```
{
```

```
public:
```

```
card();
```

```
card(int v, string s); //value and suit
```

```
card(const card &c);
```

```
void setValue(int);
```

```
void setSuit(string);
```

```
int getValue();
```

```
string getSuit();
```

```
friend ostream& operator<< (ostream &ostr, const card& c);
```

```
//friend bool operator== (const card& lhs, const card& rhs);
```

```
card& operator = (card &c);
```

```
private:
```

```
int value;
```

```
string suit;
```

```
};
```

```
template
```

```
class node
```

```
{
```

```

public:
T nodeValue;
node* next;
node() : next(NULL) {}
node(const T& item, node *nextNode = NULL) :
nodeValue(item), next(nextNode) {}
};

```

```

/*
template
class dnode
{
public:
T nodeValue;
dnode *prev;
dnode *next;

```

```

dnode()
{
    next = this;
    prev = this;
}

dnode(const T& value): nodeValue(value)
{
    next = this;
    prev = this;
}

```

```

};
*/

```

```

#endif

```

```

// * // card class implementation // *

```

```

//empty constructor
card::card() {}

```

```

//create card given value & suit
card::card(int v, string s): value(v), suit(s)
{
    setValue(v);
    setSuit(s);
}

```

```

}

//copy constructor, = overloaded
card::card(const card &c)
{
    card newCard = new card;
    const card &c1 = c;
}

//overloaded cout to print card
ostream & operator<<(ostream & os, const card & c)
{
    if(c.value == 1)
        os << "card value: " << "Ace" << " ";
    else if(c.value <= 10)
        os << "card value: " << c.value << " ";
    else if(c.value == 11)
        os << "card value: " << "Jack" << " ";
    else if(c.value == 12)
        os << "card value: " << "Queen" << " ";
    else if(c.value == 13)
        os << "card value: " << "King" << " ";
    os << "suit: " << c.suit << endl;
    return os;
}

/*
bool operator==(const card& lhs, const card& rhs)
{

```

```

    if(lhs.value == rhs.value && lhs.suit ==rhs.suit )
    {
        return true;
        cout<< rhs.value<<endl;
    }
    else
    {
        return false;
    }

```

```

}
*/

```

```
void card::setValue(int v)
{
    value = v;
}
```

```
void card::setSuit(string s)
{
    suit = s;
}
```

```
int card::getValue()
{
    return value;
}
```

```
string card::getSuit()
{
    return suit;
}
```

```
//overloaded operator to create new card in copy constructor
card& card::operator = (card &c)
{
```

```
    newCard->value = c.value;
    newCard->suit = c.suit;
    return *this;
```

```
}
```