

Create a class **Card** with the files **Card.h** and **Card.cpp**:

Data members:

```
string name
string suit
int value
```

Functions:

```
void setName(string cardName)
void setSuit(string cardSuit)
void setValue(in cardValue)
string getName()
string getSuit()
int getValue()
void printCard()
Card(); // initialize to "No Name", "No Suit" and 0
Card(string cardName, string cardSuit, int cardValue)
```

Create a class **Deck** with the files **Deck.h** and **Deck.cpp**:

Data members:

```
vector<Card> mydeck;
```

Functions:

```
int deckSize()
void newDeck() //creates a deck of 52 cards
Card dealCard() //randomly picks a card and removes it from deck
```

Test your classes with the program on the other side of this page.

Create a makefile to manage your project.

**Show me in class your projects works and I will give you credit for the assignment and attendance.
We will extend this project in the next class.**

```
#include <iostream>
#include <string>
#include "Card.h"
#include "Deck.h"

using namespace std;

int main() {

    Deck d1;
    Card p1;
    Card p2;

    d1.newDeck();

    cout << "Deck size: " << d1.deckSize() << endl;

    p1 = d1.dealCard();
    p2 = d1.dealCard();

    p1.printCard();
    p2.printCard();

    cout << "Deck size: " << d1.deckSize();

    d1.newDeck();

    cout << endl << "New deck size: " << d1.deckSize() << endl;

    return 0;
}
```

Example test output:

```
Deck size: 52
Two of Clubs
Ace of Diamonds
Deck size: 50
New deck size: 52
```