

```
1 // we create a class for what the card would hold which is the suit, the
  ranking, and value within the constructor meaning where we construct the parts
  of the cards
2
3 import card ./
4
5 export class Card [] {
6   constructor(rank,suit,value)
7     this.suit = suit;
8     this.rank = rank;
9     this.value = value;
10  }
11
12 // we create another class for the deck it will at "this.cards" insert the
  set of cards
13
14 class Deck {
15   constructor(){
16     this.cards = [];
17   };
18
19   // at getCards the player can choose a card from the deck which will be
  returned to them.
20
21   getCards() {
22     return this.cards;
23   }
24
25   //at buildDeck we want it to run and populate through the deck and also
  shuffle
26   //we return the cards right after
27
28   buildDeck() {
29     this.populate();
30     this.shuffle();
31     return this.cards;
32   }
33   //Populate is defined as the cards names, ranking and value we have them all
  listed here.
34   //We define the suits as the type of cards, we define the ranks as the tier,
  and we define the value as the number it holds
35
36   populate() {
37     const suits = ['Spades', 'Hearts', 'Clubs', 'Diamonds']
38     const ranks = ['A','2','3','4','5','6','7','8','9','10','J','Q','K'];
39     const values = ['1','2','3','4','5','6','7','8','9','10','11','12','13'];
40
41     // let the indx be equal to 0, then i if I is less then the length og the
  suit array ('Spades',etc) it will increment by 1
42     //Same goes with the ranks
43     // we want to loop through the amount of type of cards and also loop
  through the ranks of the cards then push the variable newcards as the rank
  suit and values.
44
45     for (let i = 0; i < suits.length;i++) {
46       for (let j = 0; j < ranks.length; j++) {
47         this.cards.push(newCard(ranks[j],suits[j],values[j]));
48       }
49     }
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50     }
51
52     // we want the deck to shuffle through the cards so we implement a
statement thats says
53     // if the length of the cards is greater then 0 then the deck being
shuffled with include sorting the cards,randomizing it by subtracting by 0.5
54
55     shuffle() {
56         if (this.cards.length > 0) {
57             const shuffleDeck = this.cards.sort(() => Math.random() - 0.5)
58             this.cards = [shuffleDeck];
59         }
60     }
61 }
62
63 //when it comes to the players we want to construct by using a constucter
that would name the score,deck, and name of the player
64 //we write each variable to then display. By writing this.(name of
variable,action,object) we can then equal it to the name,object or action.
65
66 class Player {
67
68     constructor(name) {
69         this.playerName = name;
70         this.playerScore = 0;
71         this.playerDeck = [];
72     }
73     get name() {
74         return this.playerName;
75     }
76     get playerScore () {
77         return this.playerScore;
78     }
79     get deck(newDeck) {
80         if(Array.isArray(newDeck)) {
81             return this.playerDeck = newDeck;
82         }
83     }
84     set score(newScore) {
85         if (!isNaN(newScore)) {
86             this.playerScore = newScore;
87         }
88     }
89
90 }
91
92
93 //Now this is where we name off the Game it self and construct what we will
be implementing and displaying
94 // we create a constructor to place the players and deck in that we created
before
95
96 class WarGame {
97
98     constructor () {
99         this.players = [];
100         this.deck = [];
101     }
102
```

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103 //Heres where we actually start. This is where we actually implement all fo
    the variables,objects,actions that we created by making arrays using methods
    and listing off objects and names.
104 // We start off by displaying the tile where it says console.log,then we
    want it to display a prompt we do this by wriitng it out in brackets
105 //we implement a switch to list all of the options ^ means its an exit click
    on that key to initiate it and so on.
106 //at the end our input should equal our prompts
107
108 start() {
109
110
111     console.log('*** War Game ***')
112     let input = prompt('0 - Exit; 1 - Play; 2 - Look at game instructions');
113     while (input !== '^') {
114         switch (input) {
115             case '^':
116                 exit;S
117             case '1':
118                 this.createGame();
119             case '2':
120                 this.instructions();
121                 break;
122         }
123         input = prompt(`0 - Exit; 1 - Play; 2 - click here to learn how to
play`);
124     }
125
126 }
127
128 //now that we've listed all the actions,named the players, and objects we
    need to initiate the players.
129 //player 1 will equal to a new player same goes for two by using this.
    (variable name).
130 //we create a var called cards and equal it to a new that that will be built
    everytime
131 //we use the slice method to split my deck in half. Then we connsole log the
    title (dealing hands)
132 //we create a statement if we let equal 0 and i is less than this.(our
    players) but also if ourplayers,deck and value are great then the others
    players deck and value are we
133 //we will get an output of our players score being equal to 1
134 //let the winning hand equal it
135
136 createGame() {
137     this.players[0] = new player ('Player 1')
138     this.players[1] = new player ('Player 2')
139
140     const cards = new this.Deck().buildDeck();
141
142     this.players[0].deck = [cards.slice(0,26)];
143     this.players[1].deck = [cards.slice(26,52)];
144
145     console.log('***** Dealing Hands *****')
146     for (let i = 0; i < this.players[0].deck.length; i++) {
147         if (this.players[0].deck[i].value > this.players[i].deck[i].value) {
148             this.players[0].score +=1;
149
150             let winningHand = `${this.players[0].deck[i].rank} of
${this.players[0].deck[i].suit}`;

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151         console.log('Player 1 won with a ${winnningHand}');
152     }
153 }
154 }
155
156 console.log('***** Hands Finished *****')
157
158
159 if(this.players[0].score > this.players[1].score) {
160     console.log(`${this.players[0].name.toUpperCase()} WON THE WAR with a
score of ${this.players[0].score}`);
161 } else if (this.players[0].score < this.players[1].score) {
162     console.log(`${this.players[1].name.toUpperCase()} WON THE WAR with a
score of ${this.players[1].score}`);
163 } else {
164     console.log('Player one and Player tied');
165 }
166 }
167
168 // a const war game where it starts
169
170 const game = new WarGame();
171 game.start();
172
173
```