Arrays with a Team

Conner Jones

# Introduction:

This report will go over a program that I write with a team. This is one of the first time I have worked with a team using Github. Github was a major help in sharing code between team members and allowing for other members of the team to edit my code and suggest other options. This code draws 4 cards and adds the rank value together based on their suit and number ranking in poker.

# Outline:

1. Collect 4 random integers between and including 1 – 52.
2. Print out the random integers to the user.
3. Assign name strings to the integers, depending on the card ranking.
4. Print out the names of the cards to the user.
5. Assign an integer value to the card from 1 – 13, depending on it’s poker ranking.
6. Print out the value of the cards to the user.
7. Add the value of all the cards together.
8. Print out the value of all the cards added together to the user.

# Code:

This code is just over 400 lines. It was fairly tedious having to hard code all of the card values and string names.

// Importing necessary utilities for this program.

**import** java.util.concurrent.ThreadLocalRandom;

**import** java.util.stream.\*;

**public** **class** CardPicker {

// Pre-Defining necessary variables.

**static** **int**[] *Cards*;

**static** String[] *cardsDefined*;

**static** **int**[] *cardsValued*;

**static** **int** *undefinedCard*;

**static** String *definedCard*;

**static** **int** *cardValue*;

**public** **static** **void** main(String[] args) {

// Defining necessary memory space for this array.

*Cards* = **new** **int**[4];

// Assigning "cards" (integer values) to this array.

**for** (**int** i = 0; i < 4; i++) {

*Cards*[i] = *CardsPicker*();

}

// Informing the user of the randomly generated integer values that were entered into the array.

System.***out***.format("Your numbers are: %d, %d, %d, and %d.\n\n", *Cards*[0], *Cards*[1], *Cards*[2], *Cards*[3]);

// Defining necessary memory space for this array.

*cardsDefined* = **new** String[4];

// Assigning names for the card numbers (that were gathered and put within the previous array) and putting the names into this array.

**for** (**int** i = 0; i < 4; i++) {

*cardsDefined*[i] = *Definer*(*Cards*[i]);

}

// Informing the user of the names of the cards that were randomly generated.

System.***out***.println("Your First card is: The " + *cardsDefined*[0]);

System.***out***.println("Your Second card is: The " + *cardsDefined*[1]);

System.***out***.println("Your Third card is: The " + *cardsDefined*[2]);

System.***out***.println("Your Fourth card is: The " + *cardsDefined*[3] + "\n");

// Defining necessary memory space for this array.

*cardsValued* = **new** **int**[4];

// Giving a value of 1 - 13 to the cards chosen in the first array, depending on their ranking in poker. (except the Aces beating all other cards as a high-card as a number).

**for** (**int** i = 0; i < 4; i++) {

*cardsValued*[i] = *CardValuer*(*Cards*[i]);

}

// Informing the user of the values of the randomly generated cards.

System.***out***.println("The value of your First card is: " + *cardsValued*[0]);

System.***out***.println("The value of your Second card is: " + *cardsValued*[1]);

System.***out***.println("The value of your Third card is: " + *cardsValued*[2]);

System.***out***.println("The value of your Fourth card is: " + *cardsValued*[3] + "\n");

// Adding all of the card values up.

**int** totalCardsValue = IntStream.*of*(*cardsValued*).sum();

// Informing the user of the total value of all of the cards combined.

*contFromTyler*();

System.***out***.println(totalCardsValue);

}

**private** **static** **void** contFromTyler() {

System.***out***.print("The total value of all your cards is: ");

}

// This function picks four random cards.

**public** **static** **int** CardsPicker() {

**int** Number = ThreadLocalRandom.*current*().nextInt(1, 52 + 1);

**return** Number;

}

// This function initiates another function that gives the randomly generated cards string names.

**public** **static** String Definer(**int** cardToDefine) {

String definedCard = *CardDefiner*(cardToDefine);

**return** definedCard;

}

// This function defines string names of the cards that were randomly generated.

**public** **static** String CardDefiner(**int** Number) {

**if** (Number == 1) {

*definedCard* = "Ace of Spades";

**return** *definedCard*;

} **else** **if** (Number == 2) {

*definedCard* = "King of Spades";

**return** *definedCard*;

} **else** **if** (Number == 3) {

*definedCard* = "Queen of Spades";

**return** *definedCard*;

} **else** **if** (Number == 4) {

*definedCard* = "Jack of Spades";

**return** *definedCard*;

} **else** **if** (Number == 5) {

*definedCard* = "Ten of Spades";

**return** *definedCard*;

} **else** **if** (Number == 6) {

*definedCard* = "Nine of Spades";

**return** *definedCard*;

} **else** **if** (Number == 7) {

*definedCard* = "Eight of Spades";

**return** *definedCard*;

} **else** **if** (Number == 8) {

*definedCard* = "Seven of Spades";

**return** *definedCard*;

} **else** **if** (Number == 9) {

*definedCard* = "Six of Spades";

**return** *definedCard*;

} **else** **if** (Number == 10) {

*definedCard* = "Five of Spades";

**return** *definedCard*;

} **else** **if** (Number == 11) {

*definedCard* = "Four of Spades";

**return** *definedCard*;

} **else** **if** (Number == 12) {

*definedCard* = "Three of Spades";

**return** *definedCard*;

} **else** **if** (Number == 13) {

*definedCard* = "Two of Spades";

**return** *definedCard*;

} **else** **if** (Number == 14) {

*definedCard* = "Ace of Hearts";

**return** *definedCard*;

} **else** **if** (Number == 15) {

*definedCard* = "King of Hearts";

**return** *definedCard*;

} **else** **if** (Number == 16) {

*definedCard* = "Queen of Hearts";

**return** *definedCard*;

} **else** **if** (Number == 17) {

*definedCard* = "Jack of Hearts";

**return** *definedCard*;

} **else** **if** (Number == 18) {

*definedCard* = "Ten of Hearts";

**return** *definedCard*;

} **else** **if** (Number == 19) {

*definedCard* = "Nine of Hearts";

**return** *definedCard*;

} **else** **if** (Number == 20) {

*definedCard* = "Eight of Hearts";

**return** *definedCard*;

} **else** **if** (Number == 21) {

*definedCard* = "Seven of Hearts";

**return** *definedCard*;

} **else** **if** (Number == 22) {

*definedCard* = "Six of Hearts";

**return** *definedCard*;

} **else** **if** (Number == 23) {

*definedCard* = "Five of Hearts";

**return** *definedCard*;

} **else** **if** (Number == 24) {

*definedCard* = "Four of Hearts";

**return** *definedCard*;

} **else** **if** (Number == 25) {

*definedCard* = "Three of Hearts";

**return** *definedCard*;

} **else** **if** (Number == 26) {

*definedCard* = "Two of Hearts";

**return** *definedCard*;

} **else** **if** (Number == 27) {

*definedCard* = "Ace of Clubs";

**return** *definedCard*;

} **else** **if** (Number == 28) {

*definedCard* = "King of Clubs";

**return** *definedCard*;

} **else** **if** (Number == 29) {

*definedCard* = "Queen of Clubs";

**return** *definedCard*;

} **else** **if** (Number == 30) {

*definedCard* = "Jack of Clubs";

**return** *definedCard*;

} **else** **if** (Number == 31) {

*definedCard* = "Ten of Clubs";

**return** *definedCard*;

} **else** **if** (Number == 32) {

*definedCard* = "Nine of Clubs";

**return** *definedCard*;

} **else** **if** (Number == 33) {

*definedCard* = "Eight of Clubs";

**return** *definedCard*;

} **else** **if** (Number == 34) {

*definedCard* = "Seven of Clubs";

**return** *definedCard*;

} **else** **if** (Number == 35) {

*definedCard* = "Six of Clubs";

**return** *definedCard*;

} **else** **if** (Number == 36) {

*definedCard* = "Five of Clubs";

**return** *definedCard*;

} **else** **if** (Number == 37) {

*definedCard* = "Four of Clubs";

**return** *definedCard*;

} **else** **if** (Number == 38) {

*definedCard* = "Three of Clubs";

**return** *definedCard*;

} **else** **if** (Number == 39) {

*definedCard* = "Two of Clubs";

**return** *definedCard*;

} **else** **if** (Number == 40) {

*definedCard* = "Ace of Diamonds";

**return** *definedCard*;

} **else** **if** (Number == 41) {

*definedCard* = "King of Diamonds";

**return** *definedCard*;

} **else** **if** (Number == 42) {

*definedCard* = "Queen of Diamonds";

**return** *definedCard*;

} **else** **if** (Number == 43) {

*definedCard* = "Jack of Diamonds";

**return** *definedCard*;

} **else** **if** (Number == 44) {

*definedCard* = "Ten of Diamonds";

**return** *definedCard*;

} **else** **if** (Number == 45) {

*definedCard* = "Nine of Diamonds";

**return** *definedCard*;

} **else** **if** (Number == 46) {

*definedCard* = "Eight of Diamonds";

**return** *definedCard*;

} **else** **if** (Number == 47) {

*definedCard* = "Seven of Diamonds";

**return** *definedCard*;

} **else** **if** (Number == 48) {

*definedCard* = "Six of Diamonds";

**return** *definedCard*;

} **else** **if** (Number == 49) {

*definedCard* = "Five of Diamonds";

**return** *definedCard*;

} **else** **if** (Number == 50) {

*definedCard* = "Four of Diamonds";

**return** *definedCard*;

} **else** **if** (Number == 51) {

*definedCard* = "Three of Diamonds";

**return** *definedCard*;

} **else** **if** (Number == 52) {

*definedCard* = "Two of Diamonds";

**return** *definedCard*;

}

**return** *definedCard*;

}

// This function gives the randomly generated cards alternate values.

**public** **static** **int** CardValuer(**int** Number) {

**if** (Number == 1) {

*cardValue* = 1;

**return** *cardValue*;

} **else** **if** (Number == 2) {

*cardValue* = 13;

**return** *cardValue*;

} **else** **if** (Number == 3) {

*cardValue* = 12;

**return** *cardValue*;

} **else** **if** (Number == 4) {

*cardValue* = 11;

**return** *cardValue*;

} **else** **if** (Number == 5) {

*cardValue* = 10;

**return** *cardValue*;

} **else** **if** (Number == 6) {

*cardValue* = 9;

**return** *cardValue*;

} **else** **if** (Number == 7) {

*cardValue* = 8;

**return** *cardValue*;

} **else** **if** (Number == 8) {

*cardValue* = 7;

**return** *cardValue*;

} **else** **if** (Number == 9) {

*cardValue* = 6;

**return** *cardValue*;

} **else** **if** (Number == 10) {

*cardValue* = 5;

**return** *cardValue*;

} **else** **if** (Number == 11) {

*cardValue* = 4;

**return** *cardValue*;

} **else** **if** (Number == 12) {

*cardValue* = 3;

**return** *cardValue*;

} **else** **if** (Number == 13) {

*cardValue* = 2;

**return** *cardValue*;

} **else** **if** (Number == 14) {

*cardValue* = 1;

**return** *cardValue*;

} **else** **if** (Number == 15) {

*cardValue* = 13;

**return** *cardValue*;

} **else** **if** (Number == 16) {

*cardValue* = 12;

**return** *cardValue*;

} **else** **if** (Number == 17) {

*cardValue* = 11;

**return** *cardValue*;

} **else** **if** (Number == 18) {

*cardValue* = 10;

**return** *cardValue*;

} **else** **if** (Number == 19) {

*cardValue* = 9;

**return** *cardValue*;

} **else** **if** (Number == 20) {

*cardValue* = 8;

**return** *cardValue*;

} **else** **if** (Number == 21) {

*cardValue* = 7;

**return** *cardValue*;

} **else** **if** (Number == 22) {

*cardValue* = 6;

**return** *cardValue*;

} **else** **if** (Number == 23) {

*cardValue* = 5;

**return** *cardValue*;

} **else** **if** (Number == 24) {

*cardValue* = 4;

**return** *cardValue*;

} **else** **if** (Number == 25) {

*cardValue* = 3;

**return** *cardValue*;

} **else** **if** (Number == 26) {

*cardValue* = 2;

**return** *cardValue*;

} **else** **if** (Number == 27) {

*cardValue* = 1;

**return** *cardValue*;

} **else** **if** (Number == 28) {

*cardValue* = 13;

**return** *cardValue*;

} **else** **if** (Number == 29) {

*cardValue* = 12;

**return** *cardValue*;

} **else** **if** (Number == 30) {

*cardValue* = 11;

**return** *cardValue*;

} **else** **if** (Number == 31) {

*cardValue* = 10;

**return** *cardValue*;

} **else** **if** (Number == 32) {

*cardValue* = 9;

**return** *cardValue*;

} **else** **if** (Number == 33) {

*cardValue* = 8;

**return** *cardValue*;

} **else** **if** (Number == 34) {

*cardValue* = 7;

**return** *cardValue*;

} **else** **if** (Number == 35) {

*cardValue* = 6;

**return** *cardValue*;

} **else** **if** (Number == 36) {

*cardValue* = 5;

**return** *cardValue*;

} **else** **if** (Number == 37) {

*cardValue* = 4;

**return** *cardValue*;

} **else** **if** (Number == 38) {

*cardValue* = 3;

**return** *cardValue*;

} **else** **if** (Number == 39) {

*cardValue* = 2;

**return** *cardValue*;

} **else** **if** (Number == 40) {

*cardValue* = 1;

**return** *cardValue*;

} **else** **if** (Number == 41) {

*cardValue* = 13;

**return** *cardValue*;

} **else** **if** (Number == 42) {

*cardValue* = 12;

**return** *cardValue*;

} **else** **if** (Number == 43) {

*cardValue* = 11;

**return** *cardValue*;

} **else** **if** (Number == 44) {

*cardValue* = 10;

**return** *cardValue*;

} **else** **if** (Number == 45) {

*cardValue* = 9;

**return** *cardValue*;

} **else** **if** (Number == 46) {

*cardValue* = 8;

**return** *cardValue*;

} **else** **if** (Number == 47) {

*cardValue* = 7;

**return** *cardValue*;

} **else** **if** (Number == 48) {

*cardValue* = 6;

**return** *cardValue*;

} **else** **if** (Number == 49) {

*cardValue* = 5;

**return** *cardValue*;

} **else** **if** (Number == 50) {

*cardValue* = 4;

**return** *cardValue*;

} **else** **if** (Number == 51) {

*cardValue* = 3;

**return** *cardValue*;

} **else** **if** (Number == 52) {

*cardValue* = 2;

**return** *cardValue*;

}

**return** *cardValue*;

}

}

At the end, there are no errors according to the IDE. Arrays are used, as well as logical statements and many other functions included in Java.

# Console:

The expected output is four random numbers, cards, values and an added value of all the random values.

1st time:

Your numbers are: 15, 26, 11, and 16.

Your First card is: The King of Hearts

Your Second card is: The Two of Hearts

Your Third card is: The Four of Spades

Your Fourth card is: The Queen of Hearts

The value of your First card is: 13

The value of your Second card is: 2

The value of your Third card is: 4

The value of your Fourth card is: 12

The total value of all your cards is: 31

2nd time:

Your numbers are: 22, 42, 30, and 37.

Your First card is: The Six of Hearts

Your Second card is: The Queen of Diamonds

Your Third card is: The Jack of Clubs

Your Fourth card is: The Four of Clubs

The value of your First card is: 6

The value of your Second card is: 12

The value of your Third card is: 11

The value of your Fourth card is: 4

The total value of all your cards is: 33

3rd time:

Your numbers are: 39, 25, 46, and 35.

Your First card is: The Two of Clubs

Your Second card is: The Three of Hearts

Your Third card is: The Eight of Diamonds

Your Fourth card is: The Six of Clubs

The value of your First card is: 2

The value of your Second card is: 3

The value of your Third card is: 8

The value of your Fourth card is: 6

The total value of all your cards is: 19

As show, the generated cards, values, numbers and added values are all random based on the random function included in java.util.concurrent.ThreadLocalRandom.

# Discussion:

I enjoyed writing this code. Hard-coding the individual cards and values was very tedious. I learned a lot about working in a team, managing a project and contributing to other people’s code. All of this was highly supported by the magic of Github. Github allowed us to share our work and download it quickly and easily on any machine we had access to.

# Teamwork:

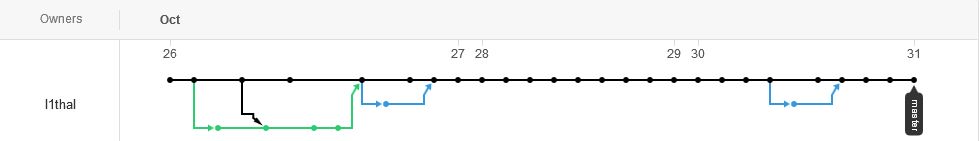
My team was very helpful and they are very driven individuals. They helped me with my code by not only including their own pieces, but also by helping me learn by adding my own pieces to their code. Suggestions also played a factor in the direction we took with our codes.

# Github Usage:

Our team caught on to using Github very fast. The first night that we started working, we were all already very comfortable with uploading and downloading our files using Github. We all used the terminal to use Github, which made everything feel much cooler.

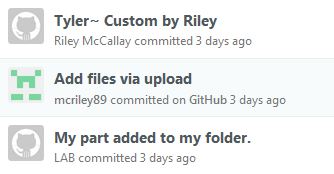
# Github Teamwork Evidence:

**Branch Screenshot:**



**Commit Messages Screenshot:**

(I am “LAB”, I later fixed this issue.)

****

# Teamwork Reflection:

I enjoyed working with my team, even though we were all feeling our way around source code management with Github. We are all highly driven individuals who all want to pursue a career in computers. My team was efficient and reliable in completing their work and did not hesitate to ask questions. I felt comfortable working within this team and would happily participate in a group project with them again.