

How has your program changed from planning to coding to now?

## **Planning Stage**

- Identify Inputs and Outputs:
  - INPUT: User input full name
  - Output: outputs what name group they're in.

Design the Structure:

- Match the first letter to letter

## **(The planning had changed Through)**

Design the structure Change:

- Has a switch sequence that each case have a set of letters the switch sequence reads the first letter of the last name to classify which case the name belongs.

```
Scanner input = new Scanner(System.in);

System.out.print("Please enter your first name: ");
String name = input.nextLine();

System.out.print("Please enter your last name: ");
String lastName = input.nextLine();

String firstLetter = lastName.substring(0, 1).toUpperCase();
```

My code starts by having a (scanner) the program asks the user to import their first and last name into two variables called (name) and ( last name). The (input) allows the user to import their name; the usual extent is used for a number that doesn't have decimals but because the program asks for a letter Ex. (A) we need a string i used Nextline for the user to import their name then the program takes the full name Ex. Hamza Ismeal and takes the group assignment asked for their last name be classified to the individual groups so the variable Called (first letter) uses the scanner class substring only to take the first letter for the word and because the next part of the code uses uppercase letter i needed to add a scanner class to make the (FristClass) variable contain only an upper case letter.

```

int group;
switch (firstLetter) {
    case "A":
    case "B":
    case "C":
    case "D":
    case "E":
    case "F":
    case "G":
    case "H":
    case "I":
        group = 1;
        break;
    case "J":
    case "K":
    case "L":
    case "M":
    case "N":
    case "O":
    case "P":
    case "Q":
        group = 2;
        break;
    case "R":
    case "S":
    case "T":
    case "U":
    case "V":
    case "W":
    case "X":
    case "Y":
    case "Z":
        group = 3;
        break;
    default:
        group = 0;
}

```

My code uses a switch statement to make it easier for me to classify the groups the switch only happens if the user import fits the requirements for the variables (FristLetter) . THE switch uses the (FristLetter) to choose which case it fits to get the groups Ex. A for group1 . Then I made a default if the user import somehow fits the requirements for (fristLetter) but don't for the case it classed as group0.

```

    if (group > 0) {
        System.out.println(name + " " + lastName + ", Great your in group " + group + ".");
    } else {
        System.out.println("wrong last name. Please try again.");
    }
}
}

```

This code checks if the variable `group` is greater than 0, indicating that the last name falls into one of the defined groups. If true, it prints a message confirming the user's name and their group assignment; otherwise, it prompts the user to try again due to an invalid last name.

After the switch the results of groups that case the user (fristLetter) the switch result splits into If and else statement if the group selected greater than 0 means that user import as valid and gives the user name and last name and same group. Else the it's wrong and the only group that goes into the else statement is the group0.

