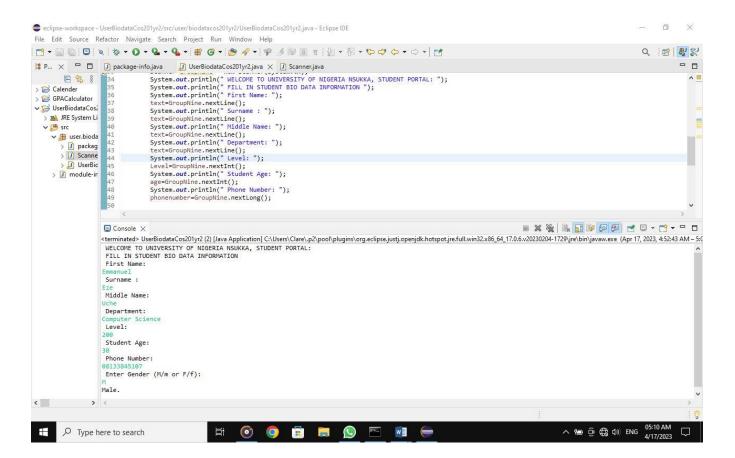# COS 201: INTRODUCTION TO PROGRAMMING
GROUP 9
TOPIC: Develop a program that asks users self-based questions

Q.1 the Project code

```java
/*GROUP 9
/*COS 201
/*PROJECT TOPIC: Develop a program that asks users self based questions.This is like a bio
data program.
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package user.biodatacos201yr2;

import java.util.Scanner;

/**
 *
 * @author Clare
 */
import java.util.Scanner;
public class UserBiodataCos201yr2 {

    /**
     * @param args the command line arguments
     */
    public static void main(String[] args) {
        // TODO code application logic here
        String text;
        int Level;
        int age;
        long phonenumber;
        char gender;




        Scanner GroupNine = new Scanner(System.in);
        System.out.println(" WELCOME TO UNIVERSITY OF NIGERIA NSUKKA, STUDENT PORTAL: ");
        System.out.println(" FILL IN STUDENT BIO DATA INFORMATION ");
        System.out.println(" First Name: ");
        text=GroupNine.nextLine();
        System.out.println(" Surname : ");
        text=GroupNine.nextLine();
        System.out.println(" Middle Name: ");
        text=GroupNine.nextLine();
        System.out.println(" Department: ");
        text=GroupNine.nextLine();
        System.out.println(" Level: ");
        Level=GroupNine.nextInt();
        System.out.println(" Student Age: ");
        age=GroupNine.nextInt();
        System.out.println(" Phone Number: ");
        phonenumber=GroupNine.nextLong();
```

```java
            System.out.println(" Enter Gender (M/m or F/f): ");
            gender=GroupNine.next().charAt(0);
            switch (gender){
                case 'M':
                    case 'm':
                            System.out.printf("Male.");
                            break;

                        case 'F':
                        case 'f':
                            System.out.printf("Female.");
                            break;

                        default:
                            System.out.printf("Unspecified gender.");
            }
            System.out.printf("\n");
        }
}
```

Q.2 Project Description:

The User Biodata Program is a Java program that prompts users to input their biodata information, including their first name, surname, middle name, department, level, age, phone number, and gender. The program then prints out the user's gender as either "Male," "Female," or "Unspecified gender." This program was developed as part of the course requirements for COS 201.

Programming Concepts Used:

1. Variables: In this program, different variables were declared and used to store various data types such as strings, integers, longs, and characters.

2. Input/Output: The Scanner class in Java was used to allow users to input their biodata information into the program while the System.out.println() method was used to output the data on the console.

3. Data Types: Various data types were used to store different kinds of information. For instance, the String data type was used to store names while the int data type was used to store numerical values.

4. Conditional Statements: The switch statement was used in this program to compare the user's input character to known values and print out the corresponding gender.

Challenges Faced:

One main challenge faced during the development of this program was handling errors that could occur when the user inputs incorrect data types. For example, if a user enters a string where an integer is expected, it will result in an error. It can also be challenging to handle unexpected behavior such as a user entering negative numbers for their age or phone number. Another challenge faced was writing clean and efficient code that follows programming best practices.

How Challenges Were Overcome:

To overcome the issue of handling input errors, we added validation checks to ensure that the user inputs the correct data type. For example, we employed the try-catch block to catch exceptions that might arise from parsing a string into an integer. Additionally, we included checks to confirm that the user's input for age and phone number were not negative.

To overcome the challenge of writing clean and efficient code, we ensured that we followed programming best practices such as using meaningful variable names to make the code more readable and understandable. We also made sure that the code was well-structured and commented where necessary.

Conclusion:

The User Biodata Program is a simple yet useful program that allows users to input their biodata information. Through this project, we gained hands-on experience in programming concepts such as variables, input/output, data types, and conditional statements. The challenges encountered during the development of this program allowed us to gain a deeper understanding of these concepts and how they can be applied in real-life situations. Overall, this project provided us with valuable insights into the world of programming and enabled us to further develop our programming skills.

LIST OF ALL THE GROUP MEMBERS AND THEIR CONTRIBUTIONS TO THE PROJECT

S/N	Full Name	Reg Number	Contributions
1.	Agbo Kate Ngozi	2019/245417	Coding & programming Team
2.	Aki Kenechukwu Michael		
3.	Ani Chukwuemeka Christian	2020/244865	Research & Sorting Team
4.	Ani Favour Divine	2020/244996	File & Data Storage Team
5.	Asogwa Chisom Linda	2020/248331	Research & Sorting Team
6.	Asoh Faustina Chibueze	2020/244999	Coding & programming Team
7.	Chidozie Johnpaul Ezechukwu	2020/244898	Reporting & Data Analysis Team
8.	Chinweike Kennedy Kosisochukwu	2020/245106	File & Data Storage Team
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11.	Etuh Daniel Smart	2020/241133	Testing & Debugging Team
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16.	Godfrey Favour Uche	2021/248639	Compiling the Group list
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18.	Ihezuru Chiagoziem Favour	2020/244859	Submission of repository
19.	Ikeyi Elsie Ofunne		

20	Joseph Ebubechukwu Victor	2020/242556	Reporting & Data Analysis Team
21.	Justice Nelson Chukwuemeka	2020/244693	Coding & programming Team
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24.	Nwankwo Ekene Harrison	2020/244908	Reporting & Data Analysis Team
25.	Obi Agatha Chidinma	2020/248515	MS word Formatting
26.	Okeke Ekene Kingsley	2020/249317	Gallery & pdf merging
27.	Okpara Omarion Samuel	2020/245000	Snipping tool
28.	Olowa Emmanuel	2020/244893	Data Validation & error handling Team
29.	Onyeahialam Crown I	2020/248338	Confirmed Submission of repository
30.	Udeh Chijioke Innocent	2019/246048	Compiling the Group list
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