1. **Description: This program reads in name and age and then prints out the person's age group.**
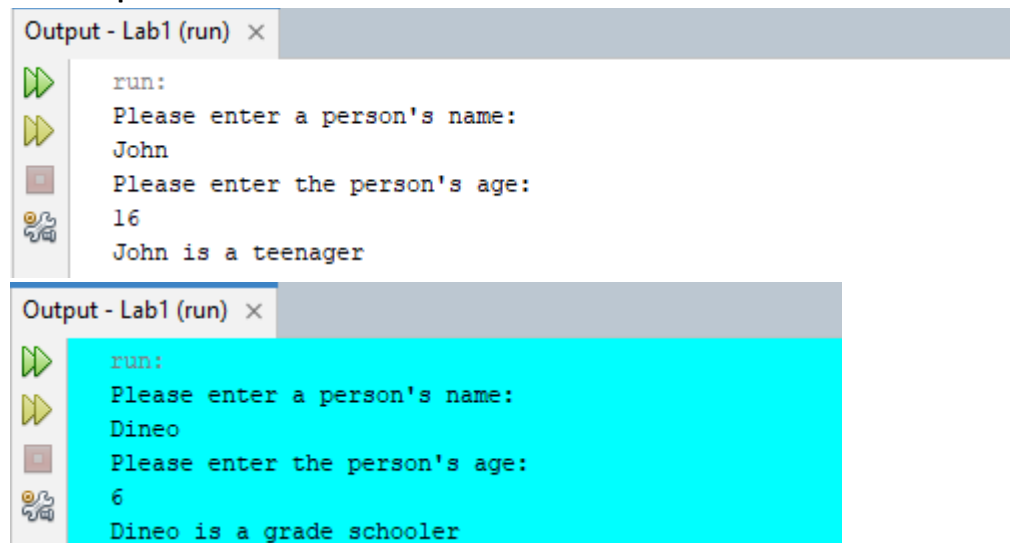
   Write a Java Program that prompts the user to input a person's name and age, then determines and prints out the person's age group according to the following:
   - Infant: age < 1
   - Toddler: age >= 1 && age <= 3
   - Preschooler: age >= 4 && age <= 5
   - Grade Schooler; age >= 6 && age <= 12
   - Teenager: age >= 13 && age <= 18
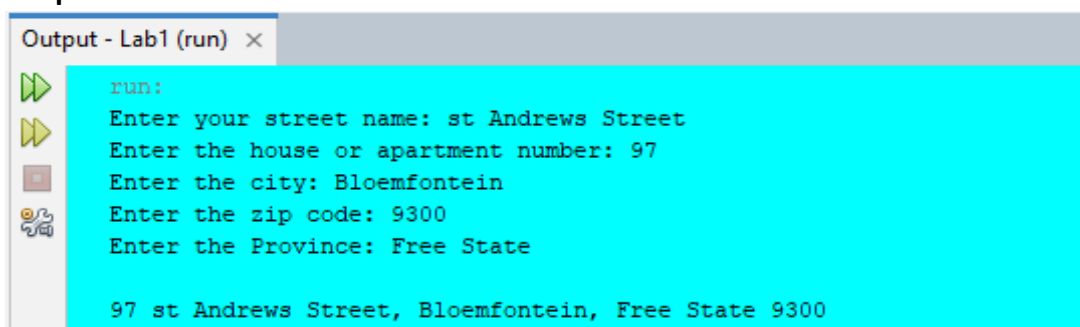   - Young Adult: age >= 19 && age <= 21
   - Otherwise, the person is considered an adult.

   Your Output should look like this:

   ```
   Output - Lab1 (run) ×

   run:
   Please enter a person's name:
   John
   Please enter the person's age:
   16
   John is a teenager
   ```

   ```
   Output - Lab1 (run) ×

   run:
   Please enter a person's name:
   Dineo
   Please enter the person's age:
   6
   Dineo is a grade schooler
   ```

2. **Description: This reads in different variables from input and then outputs them in a formatted line:**

   Write a Java Program that prompts the user to input their address details, including street, house or apartment number, city, zip code and Province. The program should then output collected information in a formatted line as follows:" <houseNum> <street>, <city>, <province> <zipcode>.
   Output:

   ```
   Output - Lab1 (run) ×

   run:
   Enter your street name: st Andrews Street
   Enter the house or apartment number: 97
   Enter the city: Bloemfontein
   Enter the zip code: 9300
   Enter the Province: Free State

   97 st Andrews Street, Bloemfontein, Free State 9300
   ```

3. **Description: This program reads in the user's taxable income and then calculates how much tax they owe based on the amount of taxable income they had.**

Write a program that will use JOptionPane to display user input, user will input their taxable income amount and the program will calculate the tax based on the given below tax table.

2024 tax year (1 March 2023 – 29 February 2024)

22 February 2023 – See changes from last year:

Taxable income (R)	Rates of tax (R)
1 – 237 100	18% of taxable income
237 101 – 370 500	42 678 + 26% of taxable income above 237 100
370 501 – 512 800	77 362 + 31% of taxable income above 370 500
512 801 – 673 000	121 475 + 36% of taxable income above 512 800
673 001 – 857 900	179 147 + 39% of taxable income above 673 000
857 901 – 1 817 000	251 258 + 41% of taxable income above 857 900
1 817 001 and above	644 489 + 45% of taxable income above 1 817 000

This will get you started, you must complete the rest, use if..else statement:

```java
public static void main(String[] args)
{
    double income, tax;
        //formats the numbers so that they will output with commas to look like formal monetary values
        DecimalFormat formatter = new DecimalFormat("#,###.00");

        //formatter.format(amount)

        income = Double.parseDouble(JOptionPane.showInputDialog(null, "Please provide your taxable income:",
                    "Taxable Income dialog 1", JOptionPane.QUESTION_MESSAGE));


        // 18% taxable rate - finished
        if( income >= 1 && income <= 237100) {
            tax = income * .18;
            JOptionPane.showMessageDialog(null, "Your income tax is R" + formatter.format(tax));
        }
        // 26% taxable rate - finished
        else if( income >237101 && income <= 370500) {
            tax = 42678 + (.26 * (income -237101 ));
            JOptionPane.showMessageDialog(null, "Your Tax income tax is R" + formatter.format(tax));
        }
```

Note: When calculating taxes, there are additional factors to consider beyond just basic income tax rate. The purpose of the exercise is to practice simple calculations by taking income tax input, performing the necessary computations, and providing the output to the user based on the income input.

Taxable Income dialog 1 ✕

? Please provide your taxable income:

[   ]

OK   Cancel

Taxable Income dialog 1 ✕

? Please provide your taxable income:

[450000   ]

OK   Cancel

Message ✕

ⓘ Your federal income tax is R102,006.69

OK