

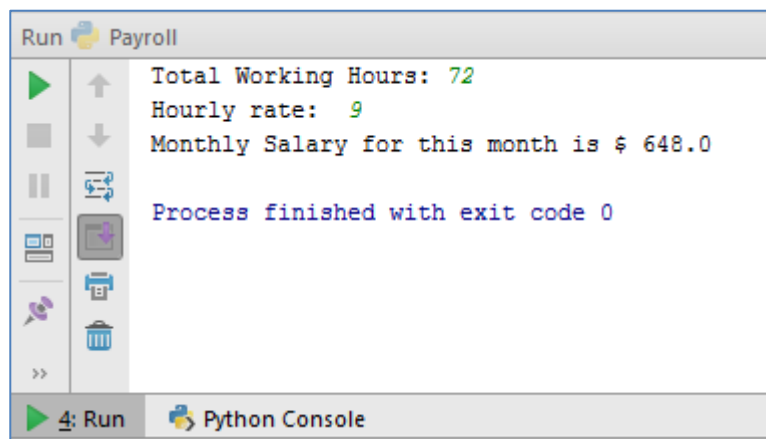
Practical 2 Variables, Expression and Statements

Learning Outcome

On successful completion of this practical, the students should be able to:

- Explain the use of variables in a program.
- Explain the use of expressions and statements in a program.

1. Write a payroll program that calculate the monthly pay for hourly employee. An hourly employee is paid for the total number of hours they work per month at an hourly rate. Use `Payroll` as the program name.



```

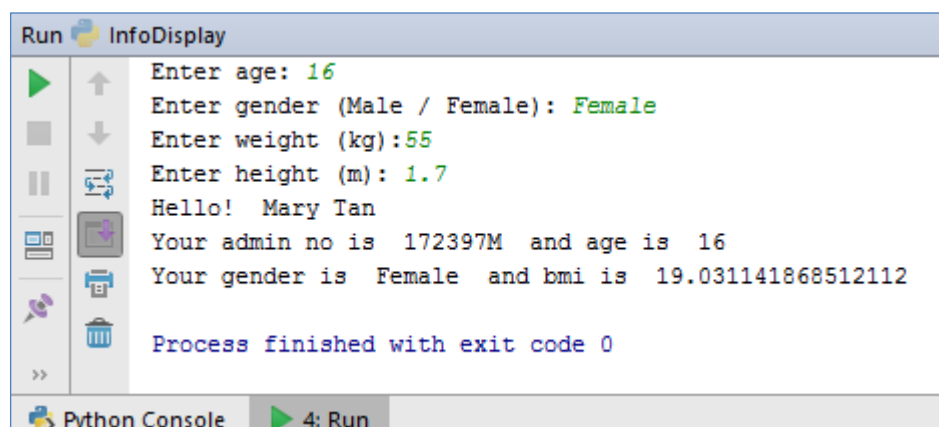
Run Payroll
Total Working Hours: 72
Hourly rate: 9
Monthly Salary for this month is $ 648.0

Process finished with exit code 0

Python Console
4: Run
  
```

Discussion : what is the potential pitfall of the suggested solution, and how can it be improved?

2. Write a class to prompt user for information and display the information on screen. A sample run of the program is as shown. Use `InfoDisplay` as the program name.



```

Run InfoDisplay
Enter age: 16
Enter gender (Male / Female): Female
Enter weight (kg): 55
Enter height (m): 1.7
Hello! Mary Tan
Your admin no is 172397M and age is 16
Your gender is Female and bmi is 19.031141868512112

Process finished with exit code 0

Python Console
4: Run
  
```

Discussion : what is the potential pitfall of the suggested solution, and how can it be improved?

3. For Programming Essentials, there are three tests and one exam contributing to the final marks.
- Each test contributes a different percentage and the three tests sum up to 50% of the final marks.
 - The exam contributes 50% of the final marks.
 - You are tasked to write a program to calculate the final marks of the students, based on the inputs as follow on the sample screen.

```

Run ExamPercentageCalculator
> What is your score for Test 1: 50
> What is percentage for Test 1: 15
> What is your score for Test 2: 80
> What is percentage for Test 2: 25
> What is your score for Test 3: 100
> What is percentage for Test 3: 15
> What is your score for Exam: 80
> Your final mark is 82.5
> Process finished with exit code 0
  
```

Discussion : what is the potential pitfall of the suggested solution, and how can it be improved?

Remarks: The percentage for test 1, 2 and 3 is not equal 50%

Challenge

4. Last month John purchased 2000 shares of ABC Bank Corporation at \$0.40 per share. He paid his stockbroker a commission of 3 percent of amount he paid for the shares.

Write a program that help John to calculate:

- The amount of commission that John has to pay his broker. He needs to pay his stockbroker another commission of 2 percent of the amount he received for selling the shares.
- The amount he will gain/loss if he sells his shares based on the current price entered.

```

Run StockTransaction
> Enter current price for ABC Bank Corporation (S$): 0.45
> You paid total commission of (S$) 42.0
> You have made a profit of (S$) 58.0
  
```

Discussion : what is the potential pitfall of the suggested solution, and how can it be improved?

Remarks: Is the message appropriate if John makes a loss?

-End-