

*Python Core*

*Training Assignments*

| **Program Code** |  |
| --- | --- |
| **Issue/Revision** |  |
| **Effective date** |  |

**Assignment 2**

**Book ‘2021\_Gaddis - Starting out with python-Pearson’**

1. Implement the algorithm from pseudocode (Control flow: 3-1, page 126):

*Get* the *first test score*

*Get the second test score*

*Get the third test score*

*Calculate the average*

*Display the average*

*If the average is greater than 95:*

*Congratulate the user*

1. Implement the algorithm from pseudocode (Control flow: 3-2, page 129):

*Get the number of hours worked*

*Get the hourly pay rate*

*If the employee worked more than 40 hours (Overtime multiplier is 1.5):*

*Calculate and display the gross pay with overtime*

*Else:*

*Calculate and display the gross pay as usual*

1. Implement the algorithm from flow chart (Control flow: 3-5, page 137):

*Diagram

Description automatically generated*

If we follow the flow of execution, we see that the condition salary >= 30000 is tested. If this condition is false, there is no need to perform further tests; we know the customer does not qualify for the loan. If the condition is true, however, we need to test the second condition. This is done with a nested decision structure that tests the condition years\_on\_job >= 2. If this condition is true, then the customer qualifies for the loan. If this condition is false, then the customer does not qualify.

1. Implement the algorithm from pseudocode (Loop: 4-7, page 181):

*Loop to display “Hello world” five times.*

1. Implement the algorithm from flow chart (Loop: 4-1, page 174, 172):

Diagram

Description automatically generated