AIPP LAB 18

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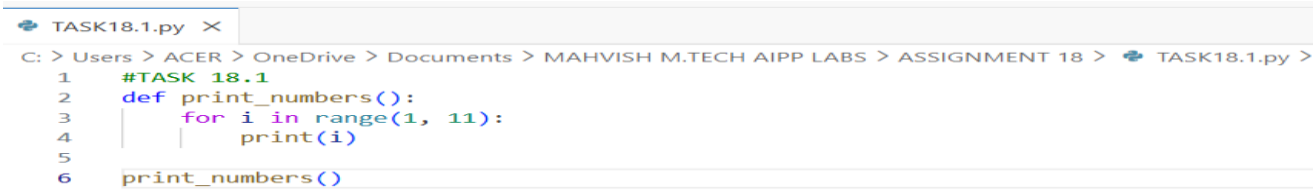
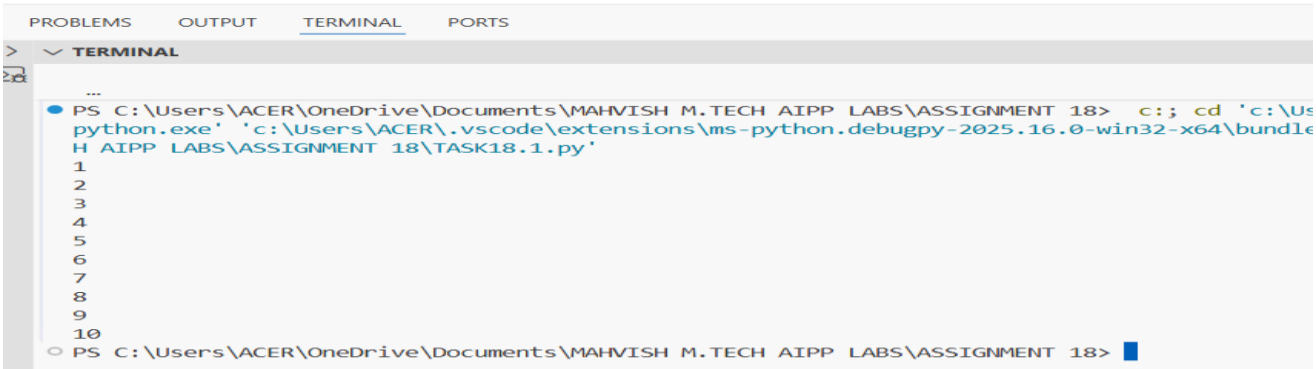
Completed this Assignment using VS – Gemini AI Integration.

Task 1:

Translate a Simple Program (Python → JavaScript)

CODE:





main.js | Share | Run | Output

```
function printNumbers() {
    for (let i = 1; i <= 10; i++) {
        console.log(i);
    }
}

printNumbers();
```

```
1
2
3
4
5
6
7
8
9
10

=== Code Execution Successful ===
```

Task 2:

Convert Conditional Statements (Java → Python)

CODE:

TASK18.1.py | TASK18.2.py

C: > Users > ACER > OneDrive > Documents > MAHVISH M.TECH AIPP LABS > ASSIGNMENT 18 > TASK18.2.py > ...

```python
#TASK 18.2
def check_number(num):
    if num > 0:
        print("The number is positive")
    elif num < 0:
        print("The number is negative")
    else:
        print("The number is zero")

check_number(-5)
check_number(0)
check_number(7)
```

PROBLEMS | OUTPUT | TERMINAL | PORTS

TERMINAL

```
PS C:\Users\ACER\OneDrive\Documents\MAHVISH M.TECH AIPP LABS\ASSIGNMENT 18> ^C
PS C:\Users\ACER\OneDrive\Documents\MAHVISH M.TECH AIPP LABS\ASSIGNMENT 18>  c:; cd 'c:\User
python.exe' 'c:\Users\ACER\.vscode\extensions\ms-python.debugpy-2025.16.0-win32-x64\bundled\
H AIPP LABS\ASSIGNMENT 18\TASK18.1.py'
1 ...
6
7
8
9
10
PS C:\Users\ACER\OneDrive\Documents\MAHVISH M.TECH AIPP LABS\ASSIGNMENT 18> ^C
PS C:\Users\ACER\OneDrive\Documents\MAHVISH M.TECH AIPP LABS\ASSIGNMENT 18>  c:; cd 'c:\User
python.exe' 'c:\Users\ACER\.vscode\extensions\ms-python.debugpy-2025.16.0-win32-x64\bundled\
H AIPP LABS\ASSIGNMENT 18\TASK18.2.py'
The number is negative
The number is zero
The number is positive
PS C:\Users\ACER\OneDrive\Documents\MAHVISH M.TECH AIPP LABS\ASSIGNMENT 18>
```

TASK18.2.java

```java
public class Main {
    public static void checkNumber(int num) {
        if (num > 0)
            System.out.println("The number is positive");
        else if (num < 0)
            System.out.println("The number is negative");
        else
            System.out.println("The number is zero");
    }

    public static void main(String[] args) {
        checkNumber(-5);
        checkNumber(0);
        checkNumber(7);
    }
}
```

STDIN

Input for the program (Optional)

Output:

```
The number is negative
The number is zero
The number is positive
```

Task 3:

Translate Recursive Function (Python → C++)

CODE:

TASK18.1.py | TASK18.2.py | TASK18.3.py

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```python
def factorial(n):
    if n == 0:
        return 1
    return n * factorial(n - 1)

print("Factorial =", factorial(5))
print("Factorial =", factorial(0))
```

PROBLEMS OUTPUT TERMINAL PORTS

TERMINAL

```
PS C:\Users\ACER\OneDrive\Documents\MAHVISH M.TECH AIPP LABS\ASSIGNMENT 18>  & 'c:\Python312
4\bundled\libs\debugpy\launcher' '62856' '--' 'C:\Users\ACER\OneDrive\Documents\MAHVISH M.TE
Factorial = 120
Factorial = 1
PS C:\Users\ACER\OneDrive\Documents\MAHVISH M.TECH AIPP LABS\ASSIGNMENT 18>
```

TASK18.3.cpp

```cpp
#include <iostream>
using namespace std;

int factorial(int n) {
    if (n == 0) return 1;
    return n * factorial(n - 1);
}

int main() {
    cout << "Factorial = " << factorial(5) << endl;
    cout << "Factorial = " << factorial(0) << endl;
}
```

STDIN

Input for the program (Optional)

Output:

```
Factorial = 120
Factorial = 1
```

Task 4:

Data Structures with Functions (JavaScript → Python)

CODE:

TASK18.1.py | TASK18.2.py | TASK18.3.py | TASK18.4.py

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```python
def print_students(students):
    print("Student List:")
    for name in students:
        print(name)

print_students(["Alice", "Bob", "Charlie"])
```

PROBLEMS OUTPUT TERMINAL PORTS

TERMINAL

```
PS C:\Users\ACER\OneDrive\Documents\MAHVISH M.TECH AIPP LABS\ASSIGNMENT 18>  & 'c:\Pytho
4\bundled\libs\debugpy\launcher' '58692' '--' 'C:\Users\ACER\OneDrive\Documents\MAHVISH
Student List:
Alice
Bob
Charlie
PS C:\Users\ACER\OneDrive\Documents\MAHVISH M.TECH AIPP LABS\ASSIGNMENT 18>
```

TASK18.4.js

```javascript
function printStudents(students) {
    console.log("Student List:");
    for (let name of students) {
        console.log(name);
    }
}

printStudents(["Alice", "Bob", "Charlie"]);
```

STDIN

Input for the program (Optional)

Output:

```
Student List:
Alice
Bob
Charlie
```

Task 5:

Class & Object Translation (Python → Java)

CODE:

TASK18.1.py | TASK18.2.py | TASK18.3.py | TASK18.4.py | TASK18.5.py

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```python
class Car:
    def __init__(self, brand, model, year):
        self.brand = brand
        self.model = model
        self.year = year

    def display_details(self):
        print("Car Details:")
        print("Brand:", self.brand)
        print("Model:", self.model)
        print("Year:", self.year)

car1 = Car("Toyota", "Corolla", 2020)
car1.display_details()
```

PROBLEMS OUTPUT TERMINAL PORTS

TERMINAL

```
PS C:\Users\ACER\OneDrive\Documents\MAHVISH M.TECH AIPP LABS\ASSIGNMENT 18>  & 'c:\Python312'
4\bundled\libs\debugpy\launcher' '63863' '--' 'C:\Users\ACER\OneDrive\Documents\MAHVISH M.TE
Car Details:
Brand: Toyota
Model: Corolla
Year: 2020
PS C:\Users\ACER\OneDrive\Documents\MAHVISH M.TECH AIPP LABS\ASSIGNMENT 18>
```

MAIN.java + 446xxgd4c AI NEW JAVA RUN

```java
class Car {
    String brand, model;
    int year;

    Car(String brand, String model, int year) {
        this.brand = brand;
        this.model = model;
        this.year = year;
    }

    void displayDetails() {
        System.out.println("Car Details:");
        System.out.println("Brand: " + brand);
        System.out.println("Model: " + model);
        System.out.println("Year: " + year);
    }
}

public class MAIN{
    public static void main(String[] args) {
        Car c = new Car("Toyota", "Corolla", 2020);
        c.displayDetails();
    }
}
```

STDIN

Input for the program (Optional)

Output:

```
Car Details:
Brand: Toyota
Model: Corolla
Year: 2020
```
