Programming with python

Lab(1)

Example(1): Hello World & Running Python

```python
print("hello world!!")
```

Example(2): Add Two Numbers

```python
# Read two numbers from user
num1 = float(input("Enter first number: "))
num2 = float(input("Enter second number: "))

# Addition operation
sum_result = num1 + num2

# Display result
print("The sum is:", sum_result)
```

Example(3): Calculate Circle Area

```python
# Constant PI
PI = 3.14159

# Read radius from user
radius = float(input("Enter circle radius: "))

# Calculate area
area = PI * radius * radius

# Display result
print("Circle area is:", area)
```

Example(4): Calculate Average of Four Grades

```python
# Read grades from user
grade1 = float(input("Enter grade 1: "))
grade2 = float(input("Enter grade 2: "))
grade3 = float(input("Enter grade 3: "))
grade4 = float(input("Enter grade 4: "))

# Calculate sum
total = grade1 + grade2 + grade3 + grade4

# Calculate average
```

```
average = total / 4

# Display results
print("Total:", total)
print("Average:", average)
```

Example (5): Convert Meters to Centimeters

```
# Constant (conversion factor)
CM_PER_METER = 100

# Read value in meters from user
value_in_meters = float(input("Enter value in
meters:      "))

# Convert to centimeters
value_in_cm = value_in_meters * CM_PER_METER

# Display result
print("Value in centimeters:", value_in_cm)
```