



Name: Wania Hijab Satti

SAP ID: 63686

Subject: PF Lab Assignment

PF Lab Assignment 5 Dry Run

Task 1:

| Iteration | Variable | i<=10 | Ouput(Product i*n==4) | Action |
|------------------|----------|-------|--------------------------|--|
| 1 st | i = 1 | True | 4 | 4 is printed and i is increased to 2 |
| 2 nd | i = 2 | True | 8 | 8 is printed and i is increased to 3 |
| 3 rd | i = 3 | True | 12 | 12 is printed and i is increased to 4 |
| 4 th | i = 4 | True | 16 | 16 is printed and i is increased to 5 |
| 5 th | i = 5 | True | 20 | 20 is printed and i is increased to 6 |
| 6 th | i = 6 | True | 24 | 24 is printed and i is increased to 7 |
| 7 th | i = 7 | True | 28 | 28 is printed and i is increased to 8 |
| 8 th | i = 8 | True | 32 | 32 is printed and i is increased to 9 |
| 9 th | i = 9 | True | 36 | 36 is printed and i is increased to 10 |
| 10 th | i = 10 | True | 40 | 40 is printed and i is increased to 11 |
| 11 th | i = 11 | False | | The loop is terminated |

Task 2:

| Iteration | Variable | i > 0 | Ouput | Action |
|-----------------|----------|-------|-------|--------------------------------------|
| 1 st | i = 5 | True | 5 | 5 is printed and i is decreased to 4 |
| 2 nd | i = 4 | True | 4 | 4 is printed and i is decreased to 3 |
| 3 rd | i = 3 | True | 3 | 3 is printed and i is decreased to 2 |
| 4 th | i = 2 | True | 2 | 2 is printed and i is decreased to 1 |
| 5 th | i = 1 | True | 1 | 1 is printed and i is decreased to 0 |
| 6 th | i = 0 | False | | The loop is terminated |

Task 3:

| Iteration | Variable | i > 0 | Ouput | Action |
|-----------------|----------|-------|-------|--|
| 1 st | i = 8 | True | | 8 is entered by user and (i > 0) is true |
| 2 nd | i = 2 | True | | 2 is entered by user and (i > 0) is true |
| 3 rd | i = 8 | True | | 8 is entered by user and (i > 0) is true |
| 4 th | i = 2 | True | | 2 is entered by user and (i > 0) is true |
| 5 th | i = 6 | True | | 6 is entered by user and (i > 0) is true |
| 6 th | i = -1 | False | | The loop is terminated as (i > 0) is false |
| Sum | | | 26 | 26 is printed |

Task 4:

| Iteration | Variable | $i \% 2 == 1$ | Ouput | Action |
|-----------------|----------|---------------|-------|------------------------|
| 1 st | $i = 1$ | True | | Sum 1=1 |
| 2 nd | $i = 2$ | False | | |
| 3 rd | $i = 3$ | True | | Sum 1+3=4 |
| 4 th | $i = 4$ | False | | |
| 5 th | $i = 5$ | True | | Sum 4+5=9 |
| 6 th | $i = 6$ | False | | The loop is terminated |
| Sum | | | 9 | 9 is printed |

Task 5:

| Iteration | Variable | $i \leq 7$ | Temp | Output | Action |
|-----------------|----------|------------|------|--------|--------------------|
| 1 st | $i = 1$ | True | 32 | | Sum =32 |
| 2 nd | $i = 2$ | True | 34 | | Sum 32+34 = 66 |
| 3 rd | $i = 3$ | True | 32 | | Sum 66+32 = 98 |
| 4 th | $i = 4$ | True | 31 | | Sum 98+31 = 129 |
| 5 th | $i = 5$ | True | 34 | | Sum 129+34 = 163 |
| 6 th | $i = 6$ | True | 33 | | Sum 163+33 = 196 |
| 7 th | $i = 7$ | True | 36 | | Sum 196+36 = 232 |
| Average | | | | 33 | Average 232/7 = 33 |

Task 6:

| Iteration | Initial Balance | Withdrawl Amount | Remaining Balance | $i > \text{remaining balance}$ | Output | Action |
|-----------------|-----------------|------------------|-------------------|--------------------------------|------------------------|---|
| 1 st | $i = 500$ | 200 | 300 | True | Transaction Successful | Condition is true so user enters withdrawl amount |
| 2 nd | $i = 300$ | 200 | 100 | True | Transaction Successful | Condition is true so user enters withdrawl amount |
| 3 rd | $i = 100$ | 100 | 0 | True | Transaction Successful | Condition is true so user enters withdrawl amount |
| 4 th | $i = 0$ | 50 | 0 | False | Insufficient Balance | Loop is terminated as condition is false |

PF Lab Assignment 5 Dry Run

Task 1:

| Iteration | Variable | i += 3 | Ouput | Action |
|------------------|----------|--------|-------|------------------------|
| 1 st | i = 2 | True | 2 | i = 2 |
| 2 nd | i = 3 | False | | |
| 3 rd | i = 4 | False | | |
| 4 th | i = 5 | True | 5 | i = 2+3 = 5 (i +=3) |
| 5 th | i = 6 | False | | |
| 6 th | i = 7 | False | | |
| 7 th | i = 8 | True | 8 | i = 5+3 = 8 (i +=3) |
| 8 th | i = 9 | False | | |
| 9 th | i = 10 | False | | |
| 10 th | i = 11 | True | 11 | i = 8+3 = 11 (i +=3) |
| 11 th | i = 12 | False | | |
| 12 th | i = 13 | False | | |
| 13 th | i = 14 | True | 14 | i = 11+3 = 14 (i +=3) |
| 14 th | i = 15 | False | | |
| 15 th | i = 16 | False | | |
| 16 th | i = 17 | True | 17 | i = 14+3 = 17 (i +=3) |
| 17 th | i = 18 | False | | |
| 18 th | i = 19 | False | | |
| 19 th | i = 20 | True | 20 | i = 17+3 = 20 (i +=3) |

Task 2:

| Iteration | Variable | i ==pass123 | Ouput | Action |
|-----------------|-------------|-------------|-----------------------------------|--|
| 1 st | i = pass1 | False | Incorrect password. Try Again! | Condition is not fulfilled so user enters the password again |
| 2 nd | i = pass12 | False | Incorrect password. Try Again! | Condition is not fulfilled so user enters the password again |
| 3 rd | i = pass123 | True | Access granted! | Access is granted |

Task 3:

| Iteration | Variable | i == 42 | Ouput | Action |
|-----------------|----------|---------|---|---|
| 1 st | i = 23 | False | Too low. Try again! | Condition is false so user guesses again. |
| 2 nd | i = 65 | False | Too high. Try again! | Condition is false so user guesses again. |
| 3 rd | i = 45 | False | Too high. Try again! | Condition is false so user guesses again. |
| 4 th | i = 42 | True | Congratulations! You guessed the secret number | The loop is terminated as condition is true and the user guessed the secret number. |

Task 4:

| Iteration | Variable | Output | Action |
|-----------------|----------|--------|--|
| 1 st | i = 1 | Hello | “Hello” should be printed when i = 1 |
| 2 nd | i = 2 | World | “World” should be printed when i = 2 |
| 3 rd | i = 3 | Exit | “Exit” should be printed when i = 3 and loop is terminated |

Task 5:

| Iteration | Variable | Square of i | Ouput | Action |
|-----------------|----------|-------------|-------|----------------------------|
| 1 st | i = 1 | 1 | | Sum of squares= 0+1 = 1 |
| 2 nd | i = 2 | 4 | | Sum of squares= 1+4 = 5 |
| 3 rd | i = 3 | 9 | | Sum of squares= 5+9 = 14 |
| 4 th | i = 4 | 16 | | Sum of squares= 14+16 = 30 |
| 5 th | i = 5 | 25 | | Sum of squares= 30+25 = 55 |
| 6 th | i = 6 | 36 | | Sum of squares= 55+36 = 91 |
| Sum of squares | | | 91 | Sum of squares= 91 |