INFS 1101 – Lab 22

Part I

## Exercise 1

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Error | Line | Type | Description | Solution |
| 1 | def calculate\_total\_cost(attendees, ticket\_price: | 1 | Syntax Error | Person forgot to put ) | def calculate\_total\_cost(attendees, ticket\_price): |
| 2 | if attendees > 5 | 4 | Syntax Error | Person forgot to put : | if attendees > 5: |
| 3 | number\_f\_attendees = input("Enter the number of attendees: ") | 17 | Runtime error | Forgot to put ‘o’ in ‘number\_of\_attendees’ | number\_of\_attendees = input("Enter the number of attendees: ") |
| 4 | if attendees > 5: | 4 | Runtime error | Attendees is a string, and cant compare it with an int | Cast type to int at line 17 number\_of\_attendees = int(input("Enter the number of attendees: ")) |
| 5 | total\_cost = Attendees - ticket\_price | 9 | Runtime error | Its written ‘Attendees’ instead of ‘attendees’ | total\_cost = attendees - ticket\_price |
| 6 | total\_cost = attendees - ticket\_price | 9 | Logical error | Total cost for N people for a price P is N \* P | total\_cost = attendees \* ticket\_price |
| 7 | discount = total\_cost + discount\_rate | 10 | Logical error | A discount for a price P will be given by P \* rate of discount | discount = total\_cost \* discount\_rate |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

INFS 1101 – Lab 22

Part I

## Exercise 2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Error | Line | Type | Description | Solution |
| 1 | print(f"Total order cost: ${total\_order\_cost}) | 36 | Syntax Error | Unterminated string | print(f"Total order cost: ${total\_order\_cost}") |
| 2 | def process\_order(: | 1 | Syntax Error | Unterminated bracket | def process\_order(): |
| 3 | def calculate\_item\_cost(item quantity): | 2 | Syntax Error | Forgot comma (,) between arguments | def calculate\_item\_cost(item, quantity): |
| 4 | Elif item == "pizza": | 7 | Syntax Error | ‘Elif’ does not exist, ‘elif’ is correct syntax | elif item == "pizza": |
| 5 | elif item = "salad": | 9 | Syntax error | Used assignment operator | elif item == "salad": |
| 6 | item = input("Enter the item name (burger, pizza, salad): ")lower() | 20 | Syntax error | Forgot to use access operator (.) | item = input("Enter the item name (burger, pizza, salad): ").lower() |
| 7 | total\_cost \*= itemcost | 24 | Runtime error | Undefined variable, forgot ‘\_’ | total\_cost \*= item\_cost |
| 8 | if choice = "no": | 29 | Syntax error | Used assignment operator | if choice == "no": |
| 9 | return totalcost | 32 | Runtime error | Undefined variable, forgot ‘\_’ | return total\_cost |
| 10 | return price\_per\_item // quantity | 14 | Logical error | Need to return price multiplied by quantity | return price\_per\_item \* quantity |
| 11 | total\_cost \*= item\_cost | 24 | Logical error | Item cost should be added to total | total\_cost += item\_cost |
| 12 | elif item == "salad":  price\_per\_item = 5 | 9, 10 | Logical error | Price for a salad should be 5 | elif item == "salad":  price\_per\_item = 4 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

INFS 1101 – Lab 22

Part I

## Exercise 3

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Error | Line | Type | Description | Solution |
| 1 | print(f"Item purchased. Remaining credit: ${credit}) | 9 | Syntax Error | Forgot “ | print(f"Item purchased. Remaining credit: ${credit}”) |
| 2 | print(f"Remaining credit: ${user\_credit}) | 24 | Syntax Error | Unterminated String | print(f"Remaining credit: ${user\_credit}") |
| 3 | items\_purchased == 0 | 2 | Runtime Error | Used logical equivalence operator | items\_purchased = 0 |
| 4 | while credit <= itemcost: | 4 | Runtime error | Undefined variable, should be ‘item\_cost’ | while credit <= item\_cost: |
| 5 | while credit <= item\_cost: | 4 | Logical error | Credit should be more or equal to cost | while credit >= item\_cost: |
| 6 | if decision == 'yes' | 6 | Syntax Error | Missing ‘:’ | if decision == 'yes': |
| 7 | credit += item\_cost | 7 | Logical Error | Credit should be subtracted | credit -= item\_cost |
| 8 | items\_purchased -= 1 | 8 | Logical Error | Item purchased should be incremented | items\_purchased += 1 |
| 9 | elif decision = 'no': | 10 | Syntax Error | Used assignment operator ‘=’ | elif decision == 'no': |
| 10 | elif decision == 'no':  False | 11 | Syntax error | It should be ‘break’ instead of ‘False’ | elif decision == 'no':  break |
| 11 | return itemspurchased | 13 | Runtime error | Undefined variable, should be ‘items\_purchased | return items\_purchased |
| 12 | user\_credit = bool(input("Enter your credit amount: $") | 16 | Syntax error | Unterminated ) | user\_credit = bool(input("Enter your credit amount: $")) |
| 13 | user\_credit = bool(input("Enter your credit amount: $")) | 16 | Logical error | Casted to bool. Should be casted to int | user\_credit = int(input("Enter your credit amount: $")) |
| 14 | total\_items = vending\_machine\_operation(user\_credit cost\_per\_item) | 20 | Syntax error | Forgot ‘,’ | total\_items = vending\_machine\_operation(user\_credit, cost\_per\_item) |
| 15 | cost\_per\_item = 1 # Fixed cost for each item 1.5 | 17 | Logical error | Should be 1.5 | cost\_per\_item = 1.5 # Fixed cost for each item 1.5 |
| 16 | print("fTotal items purchased: {total\_items}") | 23 | Logical error | Incorrect way to do f-strings | print(f"Total items purchased: {total\_items}") |
| 17 | return items\_purchased | 13 | Logical error | Should return credit in order to display onto the screen | return items\_purchased, credit  At line 20,  total\_items, credit = vending\_machine\_operation(user\_credit, cost\_per\_item)  At line 24,  print(f"Remaining credit: ${credit}") |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

INFS 1101 – Lab 22

Part I

## Exercise 4

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Error | Line | Type | Description | Solution |
| 1 | weight =float(input('Enter your weight:') | 3 | Syntax Error | Unterminated bracket | weight =float(input('Enter your weight:')) |
| 2 | Def update\_bmi(height, weight): | 5 | Syntax error | Def is used instead of ‘def’ | def update\_bmi(height, weight): |
| 3 | bmi = weight / (height \* 2) | 7 | Logical error | BMI = W/H² | bmi = weight / (height \*\* 2) |
| 4 | while bmi == 25: | 11 | Logical error | Loop runs while bmi >= 25 (overweight range) | while bmi >= 25: |
| 5 | weight += 1 | 12 | Logical error | Losing weight means weight should be decremented | weight -= 1 |
| 6 | bmi = weight / (height / 2) | 13 | Logical error | BMI = W/H² | bmi = weight / (height \*\* 2) |
| 7 | changes -= 1 | 14 | Logical error | Changes should be incremented | changes += 1 |
| 8 | if height > 1.5: | 18 | Logical error | This is checking of taller individuals | if height < 1.5: |
| 9 | final\_bmi, total\_changes = update\_bmi height, weight | 23 | Syntax error | Missing parenthesis to pass through parameters | final\_bmi, total\_changes = update\_bmi(height, weight) |
| 10 | print("Final BMI:", round(final\_bmi, '2')) | 25 | Runtime error | Round accepts int for second argument, not str | print("Final BMI:", round(final\_bmi, 2)) |
| 11 | print("Total Changes:", totalchanges) | 26 | Runtime error | Undefined variable, should be ‘total\_changes’ | print("Total Changes:", total\_changes) |

INFS 1101 – Lab 22

Part I

## Exercise 5

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Error | Line | Type | Description | Solution |
| 1 | def calculate\_calories(activity, duration) | 1 | Syntax error | Forgot : | def calculate\_calories(activity, duration): |
| 2 | if activity = "running": | 3 | Syntax error | Used assignment operator for equivalence | if activity == "running": |
| 3 | return duration 1 +10 | 4 | Syntax error | Invalid operators | return duration \* 10 |
| 4 | return duration - 5 | 10 | Logical error | 5 should be multiplied | return duration \* 5 |
| 5 | continue\_logging = true | 14 | Runtime error | `true` is undefined. Python uses `True` | continue\_logging = True |
| 6 | total\_calories\_burned == 0 | 13 | Runtime error | Used logical equivalence operator for assignment | total\_calories\_burned = 0 |
| 7 | While continue\_logging: | 16 | Syntax error | `While` used instead of `while` | while continue\_logging: |
|  | activity = input("Enter the activity (running, cycling, swimming, other): )lower() | 17 | Syntax error | Unterminated string, missing member access operator (.) | activity = input("Enter the activity (running, cycling, swimming, other): ").lower() |
|  | duration = input("Enter the duration in minutes: ") | 18 | Runtime error | Should int-cast to use as integer | duration = int(input("Enter the duration in minutes: ")) |
|  | continue\_choice = input("Do you want to log another activity? (yes/no): ").lower( | 25 | Syntax error | Unterminated bracket | continue\_choice = input("Do you want to log another activity? (yes/no): ").lower() |
|  | if continue\_choice = 'no': | 26 | Syntax error | Used assignment operator for equivalence | if continue\_choice == 'no': |
|  | if continue\_choice == 'no':  continuelogging = False | 27 | Logical error | `continuelogging` should be `continue\_logging` | if continue\_choice == 'no':  continue\_logging = False |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |