



CTU training solutions

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Certificate: Information Technology: Systems Development
Basic Programming (BP411)
Formative Assessment 2

SAQA ID: 78965

| | |
|----------------------|--|
| Date: | |
| Student Name: | |
| ID Number: | |

Complete the following question

- Take screenshots of your solutions(Code + Results)
- Convert your document to PDF and upload on ColCampus.

1. You are designing a decision structure to convert a student's integer grade to a letter grade. The program must assign a letter grade as specified in the following table:

| Percentage range | Letter Grade |
|------------------|--------------|
| 90 through 100 | A |
| 80 through 89 | B |
| 70 through 79 | C |
| 65 through 69 | D |
| 0 through 64 | F |

For example, if the user enters a 90, the output should be, "Your letter grade is A". Likewise, if a user enters an 89, the output should be "Your letter grade is B".

2. You are creating a Python program that shows a congratulation message to employees on their birthday. You need to calculate the number of years of service and print a congratulatory message. You have written the following code:

```
start = input("How old were you on the start date?")  
end = input("How old are you today?")
```

Complete the code.

3. You are developing a Python application for an E-commerce company. You need the program to iterate through a list of products and escape when a target product ID is found. **How should you complete the code?**

```
productIdList = [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
index = 0
```

```
A (index < 10):
    print(productIdList[index])
    if productIdList[index]==6:
        B
    else:
        C
```

4. You are Iterating over a dictionary that returns the keys. In this example, the keys are the types of cards in the board game Clue. **Debug the following program. Two marks per error**

```
accusation = {'room': 'ballroom',
              'weapon': 'lead pipe',
              'person': 'Col. Mustard'}
for name, contents in drinks.items()
if contents & {'vermouth', 'orange juice'}:
print(Name) ;
```

The result should be as per below:

```
room
weapon
person
```

| Rubric | | |
|------------------------------|---------|-----------|
| Criteria | Ratings | Pts |
| Descriptive comments in code | | 5 |
| Question 1 | | 20 |
| Question 2 | | 10 |
| Question 3 | | 5 |
| Question 4 | | 10 |
| Total Points: | | 50 |

Completed Declaration of Authenticity

I _____ hereby
(FULL NAME)

declare that the contents of this assignment _____ is entirely my own work except for the following documents: (List the documents and page numbers of work in this portfolio that were generated in a group)

| Activity | Date |
|----------|------|
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Signature: _____ Date: _____