Week3_programs

January 16, 2025

[3]:
```
'''1. Modify your greeting program so that if the user does not enter a name (i.
 ↪e. they just press enter),
the program responds "Hello, Stranger!".Otherwise it should print a greeting␣
 ↪with their name as before.'''
name = input("Hello, what is your name?")
if name == "":
    print("Hello, Stranger!")
else:
    print(f"Hello, {name}. Good to meet you!")
```

```
Hello, what is your name?
```

```
Hello, Stranger!
```

[6]:
```
'''2. Write a program that simulates the way in which a user might choose a␣
 ↪password.
The program should prompt for a new password, and then prompt again.
If the two passwordsenteredarethesametheprogramshouldsay"Password Set"or␣
 ↪similar,
otherwise it should report an error.'''
user = input("Enter your username: ")
password1 = input("Enter a new password: ")
password2 = input("Re-enter the password to confirm: ")

if password1 == password2:
    print(f"Welcome, {user}. New password has been set!")
else:
    print("Error!")
```

```
Enter your username:  Nancy
Enter a new password:  20068
Re-enter the password to confirm:  20068
```

```
Welcome, Nancy. New password has been set!
```

[7]:
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'''3. Modify your previous program so that the password must be between 8 and 12
characters (inclusive) long.'''
user = input("Enter your username: ")
password1 = input("Enter a new password: ")
```

```
if 8<=len(password1)<=12:
    password2 = input("Re-enter the password to confirm: ")
    if password1 == password2:
        print(f"Welcome, {user}. New password has been set!")
    else:
        print("Error! Try again.")
else:
    print("Error! Password must be between 8 and 12 characters. Try again.")
```

```
Enter your username:  Nancy
Enter a new password:  20068
```

```
Error! Password must be between 8 and 12 characters. Try again.
```

[4]:
```
'''4. Modify your program again so that the chosen password cannot be one of a␣
 ↪list of
common passwords, defined thus:
       BAD_PASSWORDS = ['password', 'letmein', 'sesame', 'hello',␣
 ↪'justinbieber']'''

BAD_PASSWORDS = ['password', 'letmein', 'sesame', 'hello', 'justinbieber']

user= input("Enter your username: ")
password1 = input("Enter your new password (Must have 8 to 12 characters): ")

if password1 in BAD_PASSWORDS:
    print("Error: Don't use a common password! Try again.")
elif (8<=len(password1)<= 12):
    password2 = input("Re-enter the password to confirm: ")
    if password1 == password2:
        print(f"Welcome, {user}. New password has been set!")
    else:
        print("Error: Passwords do not match. Try again.")
else:
    print("Error! Password must be between 8 and 12 characters. Try again.")
```

```
Enter your username:  Jane
Enter your new password (Must have 8 to 12 characters):  newjane23
Re-enter the password to confirm:  newjane23
```

```
Welcome, Jane. New password has been set!
```

[16]:
```
'''5. Modify your program a final time so that it executes until the user
successfully chooses a password. That is, if the password chosen fails
any of the checks, the program should return to asking for the password
the first time.'''

BAD_PASSWORDS = ['password', 'letmein', 'sesame', 'hello', 'justinbieber']
```

```
user = input("Enter your username: ")
password1 = input("Enter your new password (Must have 8 to 12 characters): ")

while password1 not in BAD_PASSWORDS and (8<=len(password1)<=12):
    password2 = input("Re-enter the password to confirm: ")

    if password1 == password2:
        print(f"Welcome, {user}. New password has been set!")
        break
    else:
        print("Error: Passwords do not match. Try again.")
        password1 = input("Enter your new password (Must have 8 to 12␣
 ↪characters): ")

if not (8<=len(password1)<=12):
    print("Error: Password must have 8 to 12 characters!")
elif password1 in BAD_PASSWORDS:
    print("Error: Passwords do not match. Try again.")
```

```
Enter your username:  Tajun
Enter your new password (Must have 8 to 12 characters):  imta2233
Re-enter the password to confirm:  imta2233

Welcome, Tajun. New password has been set!
```

[17]:
```
'''6. Write a program that displays the "Seven Times Table". That is,
the result of multiplying 7 by every number from 0 to 12 inclusive.
The output might start:
0x7=0
1x7=7
2 x 7 = 14
and so on.'''

for num in range(13):
    print(f"{num} * 7 = {num*7}")
```

```
0 * 7 = 0
1 * 7 = 7
2 * 7 = 14
3 * 7 = 21
4 * 7 = 28
5 * 7 = 35
6 * 7 = 42
7 * 7 = 49
8 * 7 = 56
9 * 7 = 63
10 * 7 = 70
11 * 7 = 77
```

```
12 * 7 = 84
```

[15]:
```
'''7. Modify your "Times Table" program so that the user enters the number of␣
 ↪the table
they require. This number should be between 0 and 12 inclusive.'''

table_num = int(input("Enter the number for times table: "))

if 0<=table_num<=12:
    print(f"Times Table for {table_num}: ")
    for num in range(13):
        print(f"{num} * {table_num} = {num*table_num}")
else:
    print("Error: Enter a number between 0 and 12")
```

```
Enter the number for times table:  12
```

```
Times Table for 12:
0 * 12 = 0
1 * 12 = 12
2 * 12 = 24
3 * 12 = 36
4 * 12 = 48
5 * 12 = 60
6 * 12 = 72
7 * 12 = 84
8 * 12 = 96
9 * 12 = 108
10 * 12 = 120
11 * 12 = 132
12 * 12 = 144
```

[4]:
```
'''8. Modify the "Times Table" again so that the user still enters the
number of the table, but if this number is negative the table is printed␣
 ↪backwards.
So entering "-7" would produce the Seven Times Table starting at "12 times"
down to "0 times".'''

table_num = int(input("Enter the number for times table: "))

if table_num<0:
    table_num = -table_num
    print(f"Times table for -{table_num} (backwards): ")
    for num in range(12,-1,-1):
        print(f"{num} * {table_num} = {num*table_num}")
elif 0 <= table_num <= 12:
    print(f"Times table for {table_num}: ")
```

```
    for num in range(13):
        print(f"{num} * {table_num} = {num*table_num}")
else:
    print("Error: enter a number between -12 and 12.")
```

```
Enter the number for times table:  -12

Times table for -12 (backwards):
12 * 12 = 144
11 * 12 = 132
10 * 12 = 120
9 * 12 = 108
8 * 12 = 96
7 * 12 = 84
6 * 12 = 72
5 * 12 = 60
4 * 12 = 48
3 * 12 = 36
2 * 12 = 24
1 * 12 = 12
0 * 12 = 0
```