

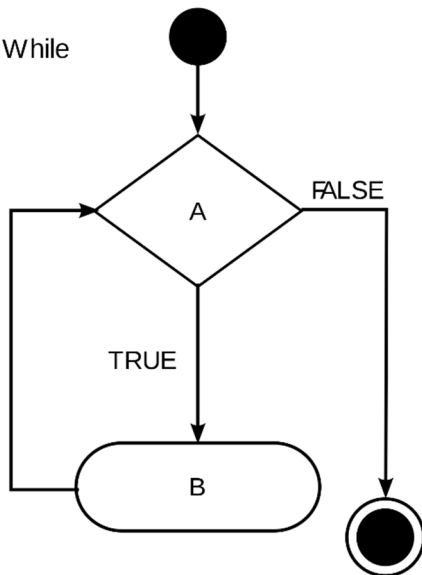
While Loops in Python

A “while loop” will execute WHILE some condition remains true. They are used to repeat a specific block of code an unknown number of times, until a condition is met.

While (A= TRUE) Do

B

End While



If we want to ask a user for their name then address them by their name, we should check for a valid input. If they do NOT enter their name, our code should keep asking until the user enters something.

```
name = input("What is your name? ")

while name == "":
    print("You did NOT enter your name")
    name = input("What is your name? ")

print(f"Hello, {name}!")
```

This code will ask for a name indefinitely until one is provided.

A similar example for an age range:

```
age = int(input("What is your age? "))

while age < 0 or age > 120:
    print("You did NOT enter a valid age. Try again.")
    age = int(input("What is your age? "))

print(f"You are {age}!")
```

If we want to keep asking questions and give the user the opportunity to Quit:

```
song = input("Enter a song you really like (press q to quit): ")

while not song == "q":
    print(f"You like the song {song}")
    song = input("Enter another song (q to quit): ")

print("Thank you for the chat, cya!")
```

Exercise:

Ask the user to enter a number between 1 and 10. If they type a wrong number, ask again and keep asking until they enter a valid response.