You will now write a program that will ask you to guess a number (hint: the number is 6). If you guess too low, too high, or just right, the program will let you know.

**Step #1**

Ask the user to input a number between 1 and 10 and assign it to a variable called `guess`:

```python
guess = input('Pick a number between 1 and 10: ')
```

**Step #2**

Now that you have the user input stored as a string named `guess`, convert it to an integer, so you can compare it to other numeric values, to determine if the guess is too low, too high, or the correct number:

```python
guess_int = int(guess)
```

This will take the string value of `guess`, convert it to an integer value, and store it back in a variable called `guess_int`. 
Step #3
Compare the numeric value of `guess_int` to some different criteria. Use the first `if` condition to check if the guess is too low:

```python
if guess_int < 6:
    print('Too low, better luck next time!')
```

This will check to see if the number is less than 6. If so, it will print the message in the `print` statement.

Step #4
Use an `elif` condition to check if the guess was greater than 6:

```python
elif guess_int > 6:
    print('Too high, better luck next time!')
```

Step #5
Add the `elif` condition that will trigger if the user correctly guesses the number 6:

```python
elif guess_int == 6:
    print('Great guess, you are correct!')
```
Step #6

Add the final `else` condition that will display a message if the user's guess does not trigger any of the previous statements:

```
else:
    print('Invalid input, please try again')
```

Step #7

There’s a problem with the code above. Can you spot it?

What if the user guesses 42? 42 is greater than 6 so the “Too high” print statement will be triggered. The rules only allow for guesses between 1 and 10, so you need to limit the conditions to be more specific. Fix the less than 6 condition first. You need to allow for guesses between 1 and 5, so anything greater than 0 or anything less than 6. That would look like this:

```
if guess_int > 0 and guess_int < 6:
```

This will work but you can combine the two conditions to make one shorter statement:

```
if 0 < guess_int < 6:
```

This condition will only evaluate as True for guesses between 0 and 5. We can apply this same logic to the greater than 6 condition to limit it guesses that are greater than 6 but less than or equal to 10:

```
elif 6 < guess_int <= 10:
```

Now if a user guesses 42 it will no longer trigger the 'Too high' condition. That guess will trigger the else statement and print “Invalid input, please try again”.
Step #8
Verify the fully assembled program is free of errors:

```python
guess = input('Pick a number between 1 and 10: ')
guess_int = int(guess)

if 0 < guess_int < 6:
    print('Too low, better luck next time!')
elif 6 < guess_int <= 10:
    print('Too high, better luck next time!')
elif guess_int == 6:
    print('Great guess, you are correct!')
else:
    print('Invalid input, please try again')
```

Step #9
Try running the program and make a bunch of different guesses to ensure you get the expected output from each guess. Save the program if desired (optional).