

Walkthrough: List Index Quiz Program

Import Statements

```
import random
```

import random: This brings in the `random` module, which lets us make random choices — like picking a random index from a list.

The Main Function

```
def main():
```

This defines the main function — the starting point of the program when it runs.

1. Create a List and Add Values

```
names = ['Karla', 'Joe', 'Jaehun', 'Carolyn', 'Oksana']  
names.append('Tasneem')
```

- `names` is a list — a collection of values stored in order.
- It starts with 5 names.
- `.append('Tasneem')` adds one more name to the end of the list.

So now the list looks like:

```
['Karla', 'Joe', 'Jaehun', 'Carolyn', 'Oksana', 'Tasneem']
```

2. Loop Over the List

```
for value in names:  
    print(value)
```

This loop goes through the list one item at a time.
On each loop, it sets `value` to the next name and prints it.

So this will print all the names, one per line.

3. Get a Random Index from the List

```
max_index = len(names) - 1  
index = random.randint(0, max_index)
```

- `len(names)` gives the number of items in the list (which is 6).
 - Subtracting 1 gives us the **maximum valid index** (5).
 - `random.randint(0, max_index)` picks a random number between 0 and 5 — this will be the index we're quizzing the user on.
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4. Use the Index to Get the Answer

```
correct_answer = names[index]
```

This line uses the random index to grab the name at that spot in the list.

For example, if `index = 4`, then `correct_answer = 'Oksana'`.

5. Ask the User and Check Their Answer

```
prompt = 'Who is in index...' + str(index) + '? '  
answer = input(prompt)
```

- This builds a question like:
"Who is in index...4?"
 - Then it shows that question to the user and waits for them to type an answer.
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6. Give Feedback

```
if answer == correct_answer:  
    print('Good job')  
else:  
    print('Correct answer was', correct_answer)
```

- If the user's answer matches the correct name, we say **"Good job"**.
 - If it doesn't match, we tell them the correct answer.
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Entry Point

```
if __name__ == '__main__':  
    main()
```

This ensures the program runs the `main()` function when the file is run directly.

Summary

What this program does:

Creates a list of names

Adds one more name

Prints all names

Picks a random index

Asks the user to guess who is at that index

Tells them if they were right or wrong

It's a great little quiz to help understand how lists and indexes work in Python!