

Here are a few more types of custom functions in Python:

11. **Closures**:

- Functions that "remember" values in the enclosing scope even if they are not present in memory.

```
```python
def outer_function(x):
 def inner_function(y):
 return x + y
 return inner_function

closure = outer_function(10)
result = closure(5) # Result: 15
```
```

12. **Partial Functions**:

- Functions that "freeze" some portion of a function's arguments and keywords to create a new function with reduced arity.

```
```python
from functools import partial

def power(base, exponent):
 return base ** exponent

square = partial(power, exponent=2)
result = square(5) # Result: 25
```
```

13. **Generator Expressions**:

- Inline, memory-efficient generators that are similar to list comprehensions but produce values lazily.

```
```python
squares = (x ** 2 for x in range(1, 6))
for square in squares:
 print(square)
```
```

14. **Map, Filter, and Reduce Functions**:

- Built-in functions that operate on iterables, allowing you to apply a function to each element, filter elements based on a condition, or reduce a sequence of values to a single value.

```

```python
numbers = [1, 2, 3, 4, 5]
squared_numbers = map(lambda x: x ** 2, numbers)
filtered_numbers = filter(lambda x: x % 2 == 0, numbers)
from functools import reduce
product = reduce(lambda x, y: x * y, numbers)
```

```

15. ****Async Functions**:**

- Functions that are defined with the ``async`` keyword, allowing asynchronous execution with ``await`` statements.

```

```python
import asyncio

async def fetch_data(url):
 # Asynchronous code to fetch data from a URL
 pass

async def process_data(data):
 # Asynchronous code to process data
 pass

async def main():
 data = await fetch_data("https://example.com")
 await process_data(data)

asyncio.run(main())
```

```

16. ****Generator Functions with `yield from`**:**

- Advanced generator functions that can delegate part of their operations to another generator.

```

```python
def generator1():
 yield 1
 yield from generator2()
 yield 3

def generator2():
 yield 2

for value in generator1():

```

```
 print(value)
...
```