Python Lambda Functions??

Video

https://youtu.be/KR22jigJLok?si=BAlXyODPT99wuw5t

Notes

- Lambda functions are functionally the same as a regular function
  - They can be used for short-lived operations where a regular function would be overly verbose
- To define a lambda function
  - Write `lambda`

    ```
    lambda
    ```

  - Add the parameters

    ```
    lambda x,y
    ```

  - Add a colon, followed by the operation to perform

    ```
    lambda x,y: x+y
    ```

  - The result is automatically returned so you do need to add a `return` statement, like you would with a regular function
- Lambda functions can only have single-line expressions
- Lambda functions are also known as anonymous functions

    - This is because they do not have identifier bound to them
        - Although you can assign them to a variable and use them, however at this point you are better off with a regular function
- You can use it using the following syntax

```
print((lambda x,y: x+y)(4,5))
```

- They are designed to be passed to a higher-order function
    - A higher-order function is one that accepts functions as parameters and/or returns a function.
    - An example use case is passing a lambda function to `map()` to apply a lambda function to all the elements in an iterable