

# Programming

## Lesson18 - Program & main function

كيفية كتابة البرنامج وماهيّة ال  
main

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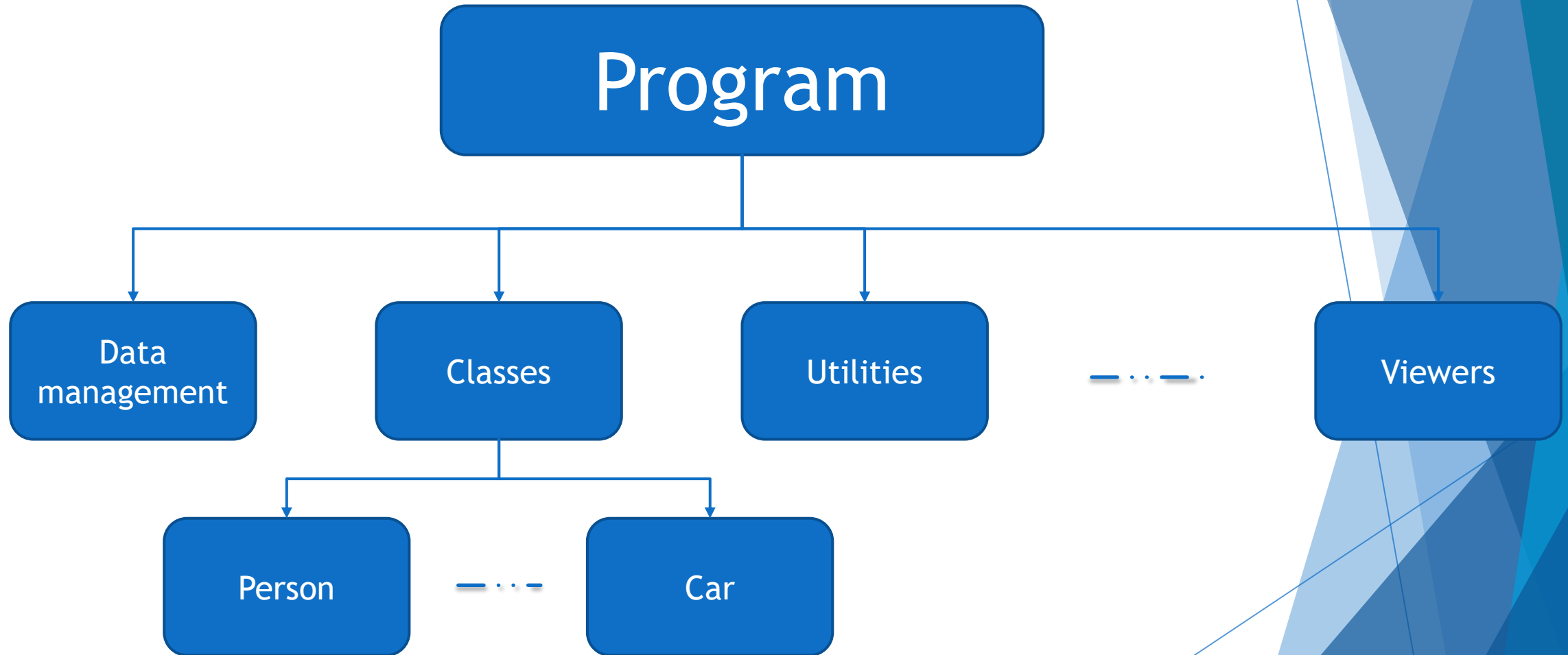
# Mode of work

- ▶ Real programs have hundreds of thousands of code lines
- ▶ Directories
  - ▶ Files



- ▶ Modular programming
  - ▶ Separating program functionality

# Modular programming



# How to start?

- ▶ Program:  
Say you have a file of students (id, name, age, grade,...)  
Take from user students number <n>  
read <n> students from file and save in dictionary  
calculate grades avg of first <n> students



Order:

1. Take input from user <n>
2. Read <n> students from file, save in dictionary
3. Loop over students and calculate avg
4. Print result

# Main

- ▶ Main file: Top level script

```
if __name__ == "__main__":  
    ...  
    code for execution  
    ...
```

Reserved keywords:  
def, int, str, ...

Reserved variables:  
\_\_name\_\_

# Let's try...😊

- ▶ Open PyCharm:
  - ▶ Create new file: main.py
  - ▶ Start coding 😊

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Thank you 😊!

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Stay tuned for more!