

## **What I'll talk about:**

- **Prototyping courses (with EFI and charities)**
- **Collaborate ❤️ interactivity**
- **Pair programming moving online**
- **Badges: Small pieces of content**
- **'Slides' videos and 'Code-Along' videos**

# Prototyping courses

**Datakirk Data Literacy Evening Class**

**EFI text mining bootcamp**



# Prototyping courses

## Datakirk Data Literacy Evening Class

**1 delivery**  
**3 months long**  
**2h class a week**  
**20 learners**



## EFI text mining bootcamp

**2 deliveries**  
**3 day long**  
**4h class a day**  
**30 learners each delivery**



**Collaborate ❤️ interactivity ❤️ breakout rooms**

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many activities would be not feasible in a physical teaching room**

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- **(actually) instant breakout rooms**
- **See who's talking in each breakout room**
- **Share exercise sheet into breakout room**
- **Very easy sharing of screens (on chrome)**
- **Anonymous and truly collaborative whiteboard**

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**Collaborate  onboarding**

**steps of interactivity**

**Raise Hand**

**Type into whiteboard**

**Interact with Whiteboard**

**Write/Speak**

**Video**

# **Collaborate onboarding**

## **steps of interactivity**

**Raise Hand**

**Raise your hand if you can hear me**

**Type into whiteboard**

**Write your name on whiteboard**

**Interact with Whiteboard**

**Arrange names alphabetically**

**Write/Speak**

**Breakout room 'stand-up'**

**Video**





**Types of data: Think how likely would you be willing to share these types of data, if in return you (and others) would be given better recommendations**





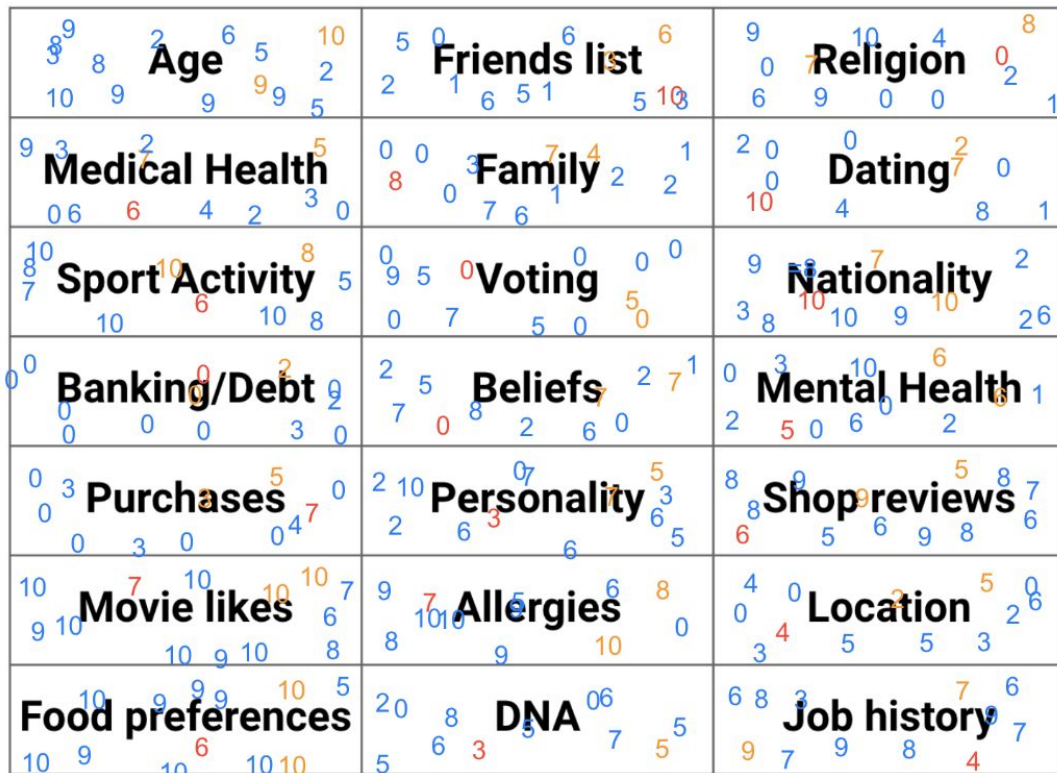
**Types of data: Think how likely would you be willing to share these types of data, if in return you (and others) would be given better recommendations**

|                         |                     |                      |
|-------------------------|---------------------|----------------------|
| <b>Age</b>              | <b>Friends list</b> | <b>Religion</b>      |
| <b>Medical Health</b>   | <b>Family</b>       | <b>Dating</b>        |
| <b>Sport Activity</b>   | <b>Voting</b>       | <b>Nationality</b>   |
| <b>Banking/Debt</b>     | <b>Beliefs</b>      | <b>Mental Health</b> |
| <b>Purchases</b>        | <b>Personality</b>  | <b>Shop reviews</b>  |
| <b>Movie likes</b>      | <b>Allergies</b>    | <b>Location</b>      |
| <b>Food preferences</b> | <b>DNA</b>          | <b>Job history</b>   |





Types of data: Think how likely would you be willing to share these types of data, if in return you (and others) would be given better recommendations



I'd share it publicly, with anyone, under my name

Anonymously but with anyone who wants it

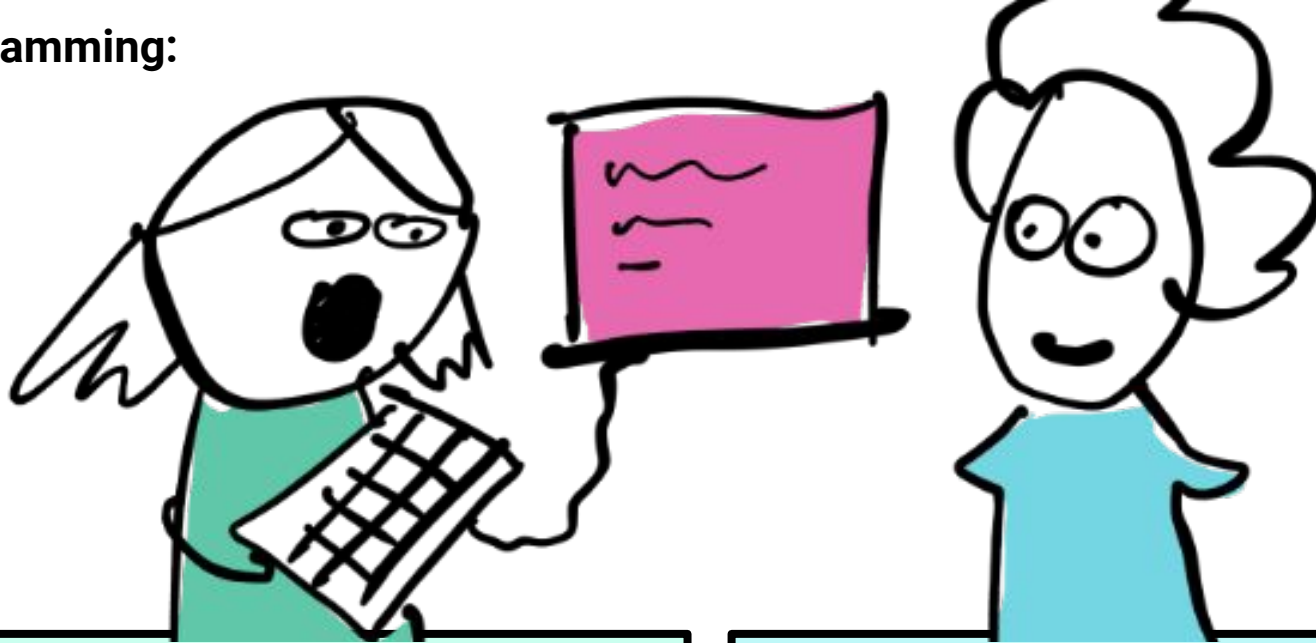
Only anonymously, only with a trusted company

I'd never share it

10

0

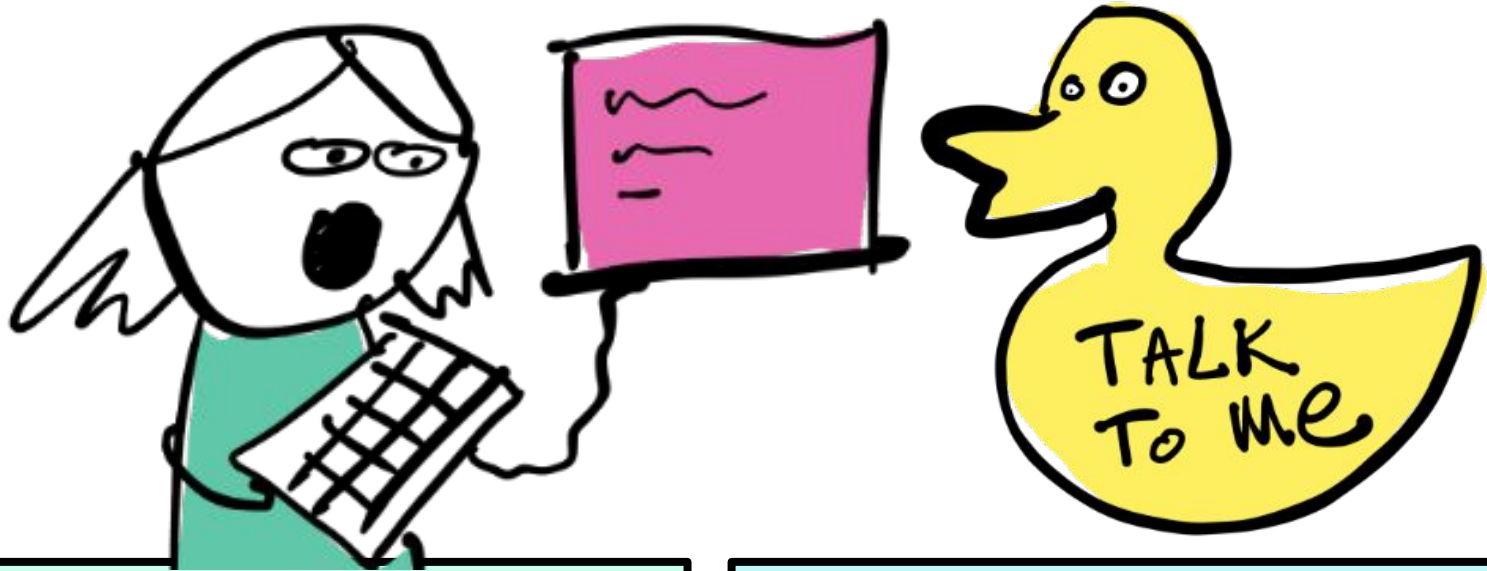
## Pair programming:



**the Driver** = active person,  
problem-solving, thinking out loud

**the Navigator** = reflective person,  
looks out for bugs, is a Rubber-Duck\*

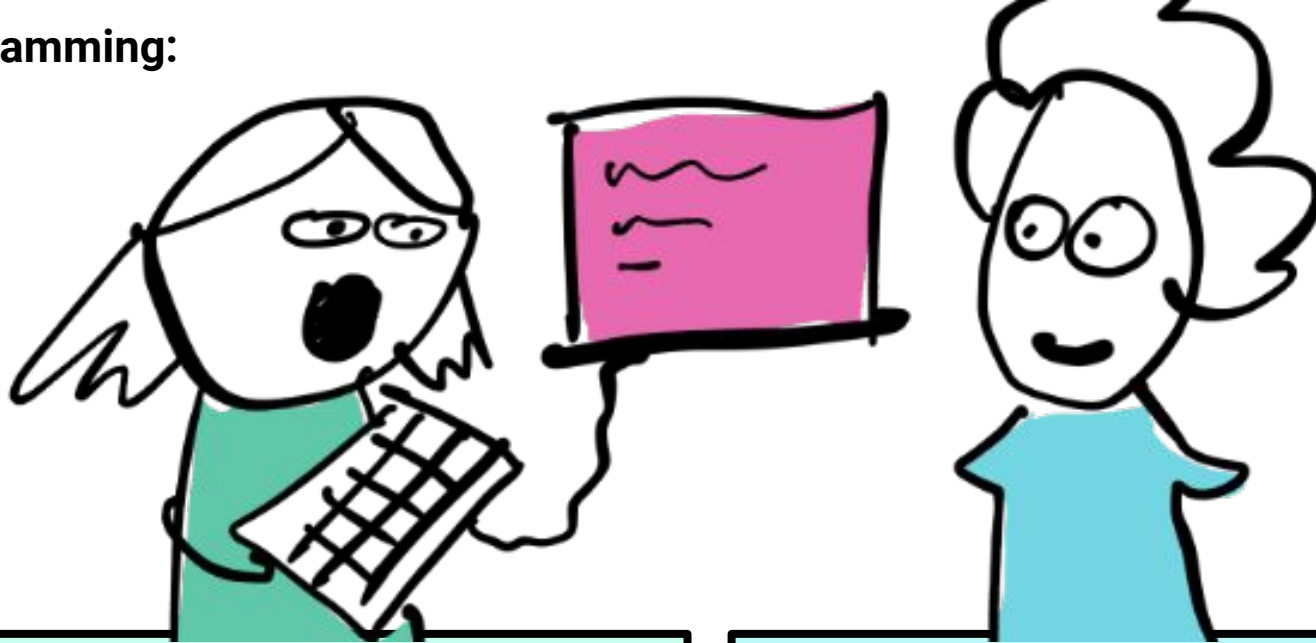
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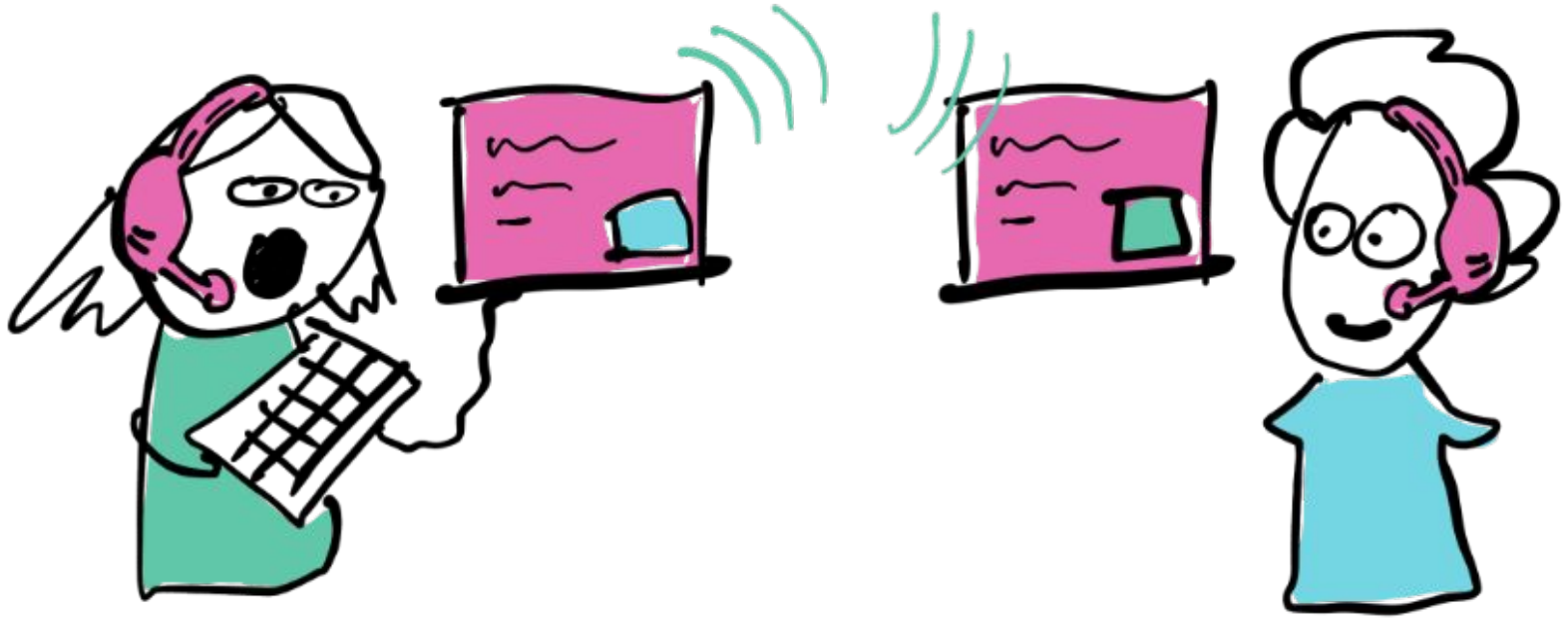
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**They switch roles every  
10 minutes**

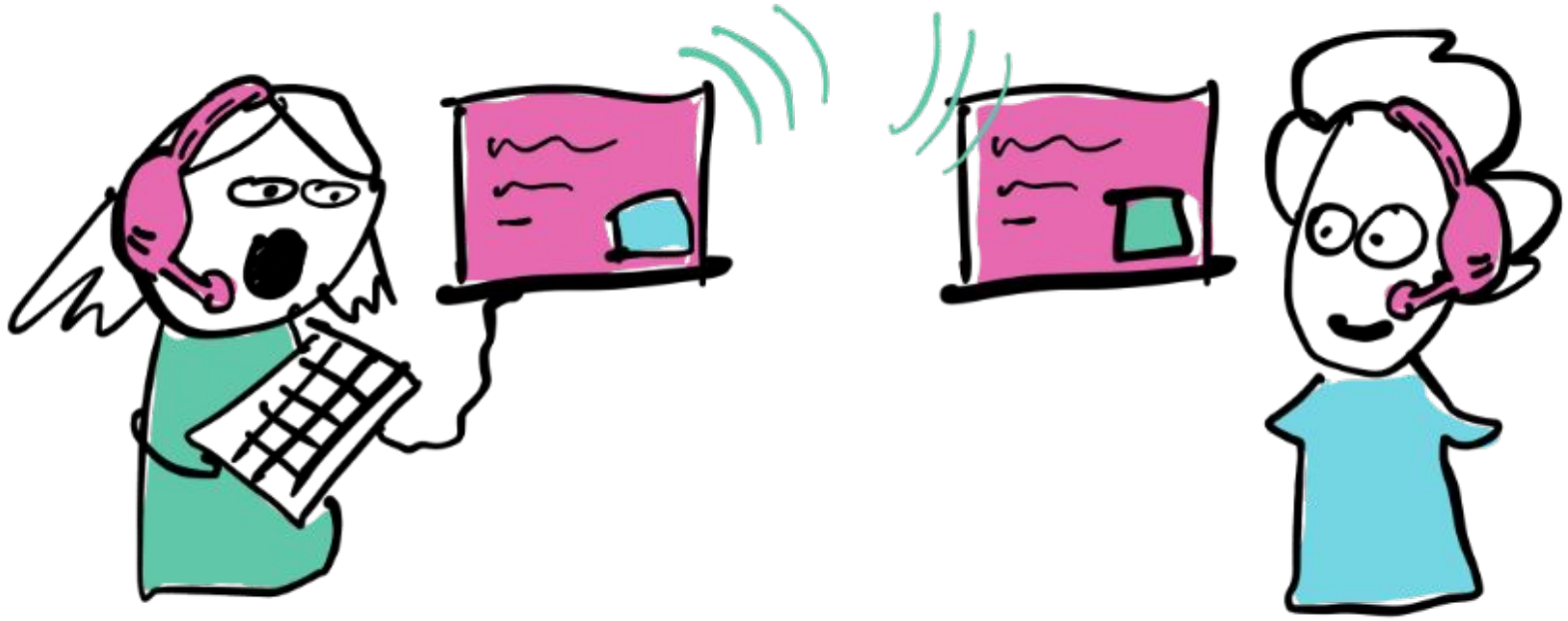


## Pair programming:



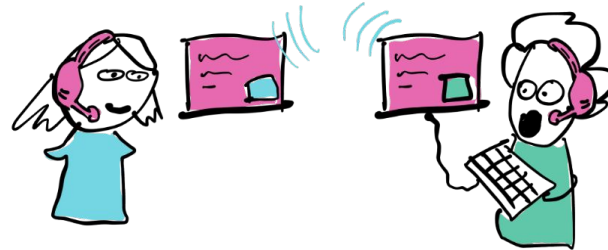


## Pair programming:



### Sharing files:

- Notable token
- Github

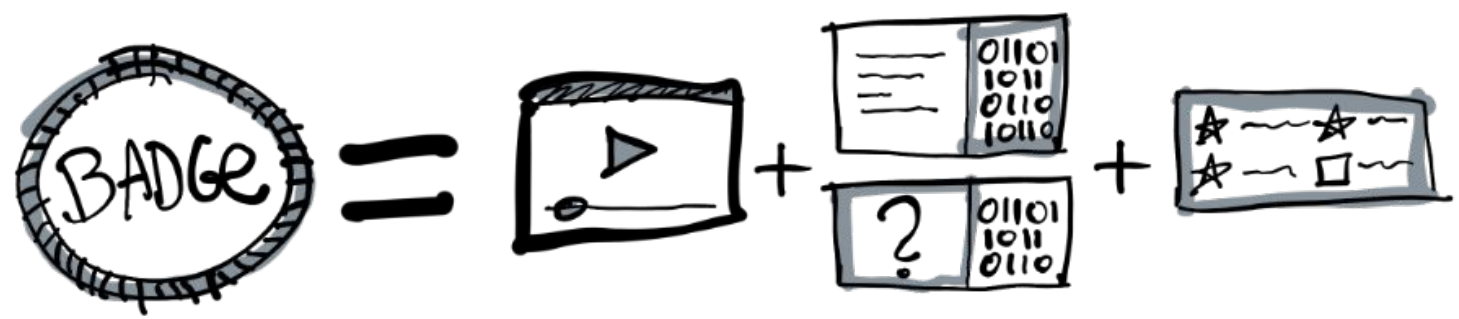


Thanks to:  
Charlotte  
Fiona

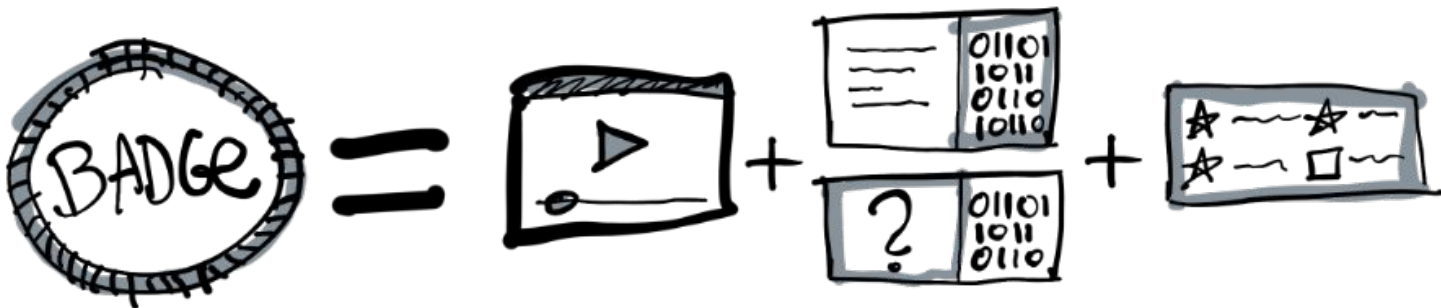


Badges

Micro-pattern













Badges  
Micro-pattern







|   |  |           |    |    |    |
|---|--|-----------|----|----|----|
| Badge 10: Doing Useful Things with Loops                                      |  Pawel Orzechowski  | Published | 21 | 21 | 22 |
| Badge 09: Repeating things with Loops   |  Pawel Orzechowski  | Published | 25 | 25 | 26 |
| B08 Badge 08 - List Comprehensions  |  Pawel Orzechowski  | Published | 28 | 28 | 29 |
| B07 Badge - Collections   |  Pawel Orzechowski  | Published | 37 | 36 | 38 |
| Badge 06: Test Driven Development   |  Pawel Orzechowski  | Published | 41 | 40 | 42 |
| Badge 05: Functions 2: Above and Beyond                                       |  Pawel Orzechowski  | Published | 37 | 37 | 38 |
| Badge 04: Functions, your D.I.Y. Superpowers                                  |  Pawel Orzechowski  | Published | 40 | 39 | 41 |
| Badge 03 - Debugging + Variable Types - In your own words: 3 Stars and a Wish |  Pawel Orzechowski  | Published | 47 | 47 | 48 |
| Badge 01 - Write code, Run code - In your own words: 3 Stars and a Wish       |  Pawel Orzechowski  | Published | 48 | 48 | 50 |
| Badge 02 - Conditions and Logic - In your own words: 3 Stars and a Wish       |  Pawel Orzechowski | Published | 48 | 48 | 49 |

# Badges

## Macro-pattern

## Learning Week: 4-5 Badges + Lab with Challenges



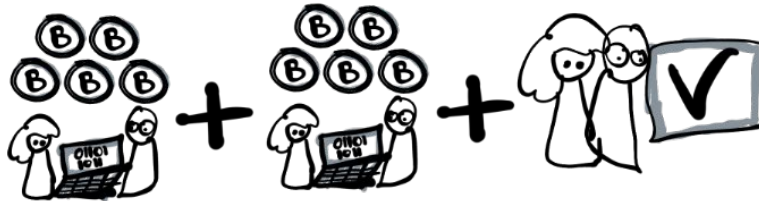
# Badges

## Macro-pattern

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3-Week Block: 2 Learning Weeks + 1 Week with Assignment



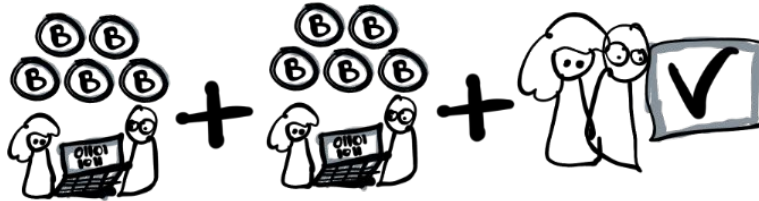
# Badges

## Macro-pattern

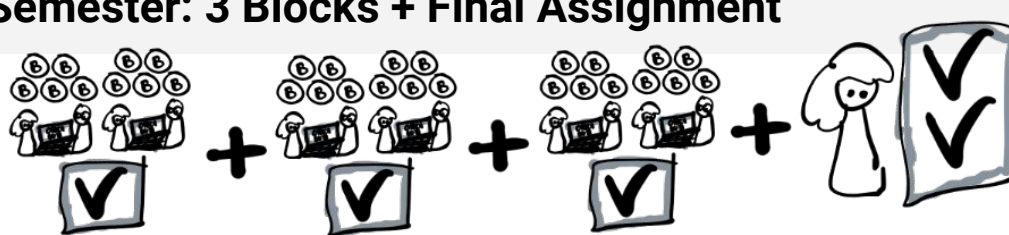
### Learning Week: 4-5 Badges + Lab with Challenges



### 3-Week Block: 2 Learning Weeks + 1 Week with Assignment



### Semester: 3 Blocks + Final Assignment



## **Notebooks and videos:**

- **voice-over videos with slides**
- **code-along videos with code**





## Lecture 2 - Collections and Loops

### Learning objectives:

note: This is a **JUPYTER NOTEBOOK**. It's a type of website where you can edit and run computer programmes (code). You interact with it in your web browser and you can find it via your Learn.

1. These blocks here are cells
2. There are **TEXT CELLS** like this one with explanations of concepts
3. and **CODE CELLS** with Python code (see below). Code cells have a `In []` written to the left
4. You can **RUN CODE CELLS** by clicking on them and pressing **Shift + Enter**. When you run a cell code in it is run (it "happens", computer will do what you asked for it to do). Results of what your code does will appear underneath the cell.
5. As we go through these lessons, please READ text cells, and RUN code cells
6. Good luck!

**Learning objectives: By the end of this lesson you will understand what every piece of the below code does:**

```
In [] : # LIST
planets = ["Mercury", "Venus", "Earth", "Mars", "Jupyter", "Saturn", "Uranus"]
print( planets[0])
print( planets[-2])
planets.sort()
print( planets)
planets.pop(3)
```

## Lecture 2 - Collections and Loops

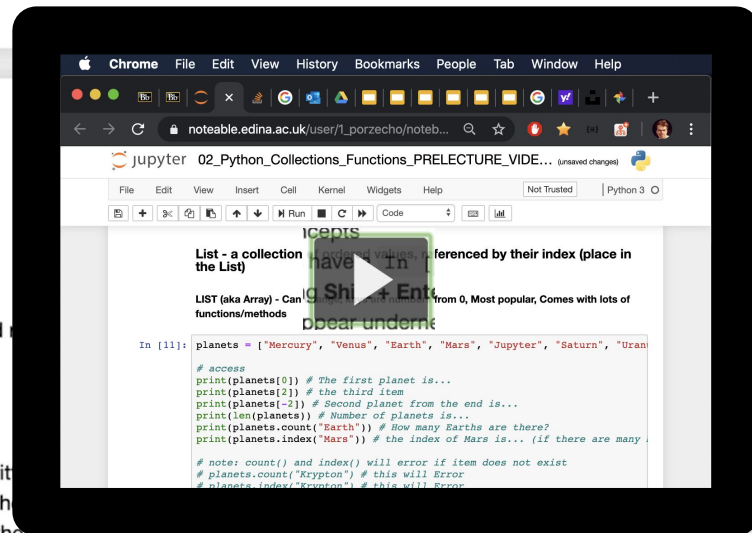
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```



action find reduce

filter map (represent differently) complex (sort, etc)

27:42

## Badge 10a: Doing Useful Things with Loops (1 of 2)

Unlisted

Owner • on October 17th, 2020

0 141 0

NOT THINKING IN CODE: Given 5 random cards:

Is there a Q ♠ there?  
How many ♠ are there?  
Is there more ♠ than ♣?  
Is the highest ♠ higher than the highest ♣?  
Are all cards in order by suit (♠ ♣ ♥ ♦)?  
Or even suit & rank (2 ♠, 2 ♣, 2 ♥, ..., A ♠, A ♣)?  
What is the Highest card? Lowest? Middle?

17:32

## Badge 09b: Repeating things with Loops (2 of 2)

Unlisted

Owner • on October 17th, 2020

0 128 0

fruits = ["plum", "apple", "pear", "kiwi", "fig"]

for fruit in fruits:  
print("word:", fruit)  
twice = fruit + fruit  
print("word twice:", twice)

22:33

## Badge 09a: Repeating things with Loops (1 of 2)

Unlisted

Owner • on October 17th, 2020

0 151 0

fruits = ["plum", "apple", "pear", "kiwi", "fig"]

result = [fruit.upper() for fruit in fruits if len(fruit) == 4]

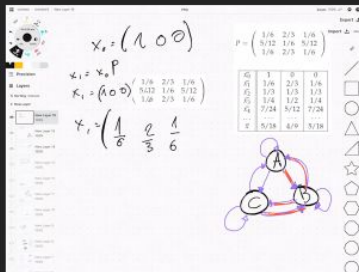
print(result)

19:32

## Badge 08 - List Comprehensions: Filter and Map (represent) Lists

Unlisted

Source: (no clips) | Effect Controls | Audio Clip | Program: WesNA\_02\_04



00:00:00:00 | Page 1 | < > >>

00:05:59:28 | Fit

1/2 | 00:13:33:13



Project: WeSNA\_02\_1 | Media Browser | >>

Media Browser

Search: WeSNA\_02\_1.prproj

| Name            | Frame |
|-----------------|-------|
| WeSNA_02        | 58.61 |
| WeSNA_02_01     | 58.61 |
| WeSNA_02_02     | 58.61 |
| WeSNA_02_03     | 58.61 |
| WeSNA_02_04     | 58.61 |
| WeSNA_02_05     | 58.61 |
| WeSNA_02_01.mov | 58.61 |
| WeSNA_02_02.mov | 57.69 |
| WeSNA_02_03.mov | 57.77 |

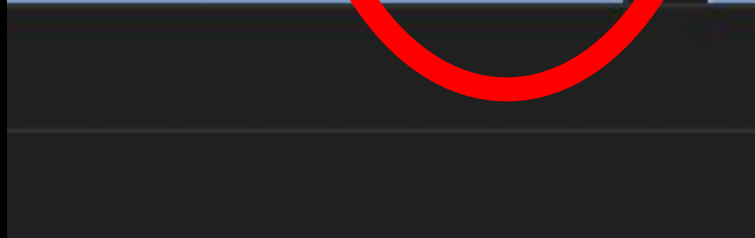
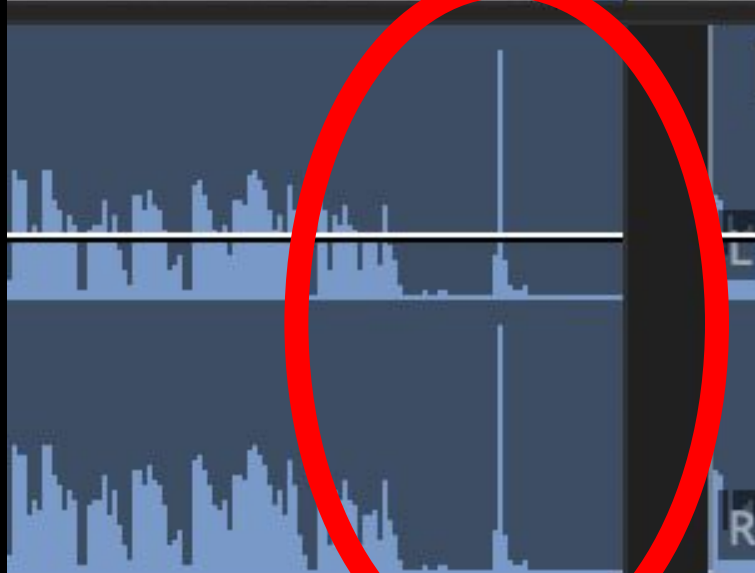
Timeline view showing multiple tracks and clips.

Tracks: Video 1 (V1), Audio 1 (A1), Master.

Clips: WeSNA\_02\_03.mov [V], WeSNA\_02\_03.mo, WeSNA\_02\_03.mov [V].

Timeline markers: 00:05:59:28, 00:03:29:29, 00:03:59:28, 00:04:29:29, 00:04:59:29, 00:05:30:00, 00:05:59:29, 00:06:30:00, 00:06:59:29.





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