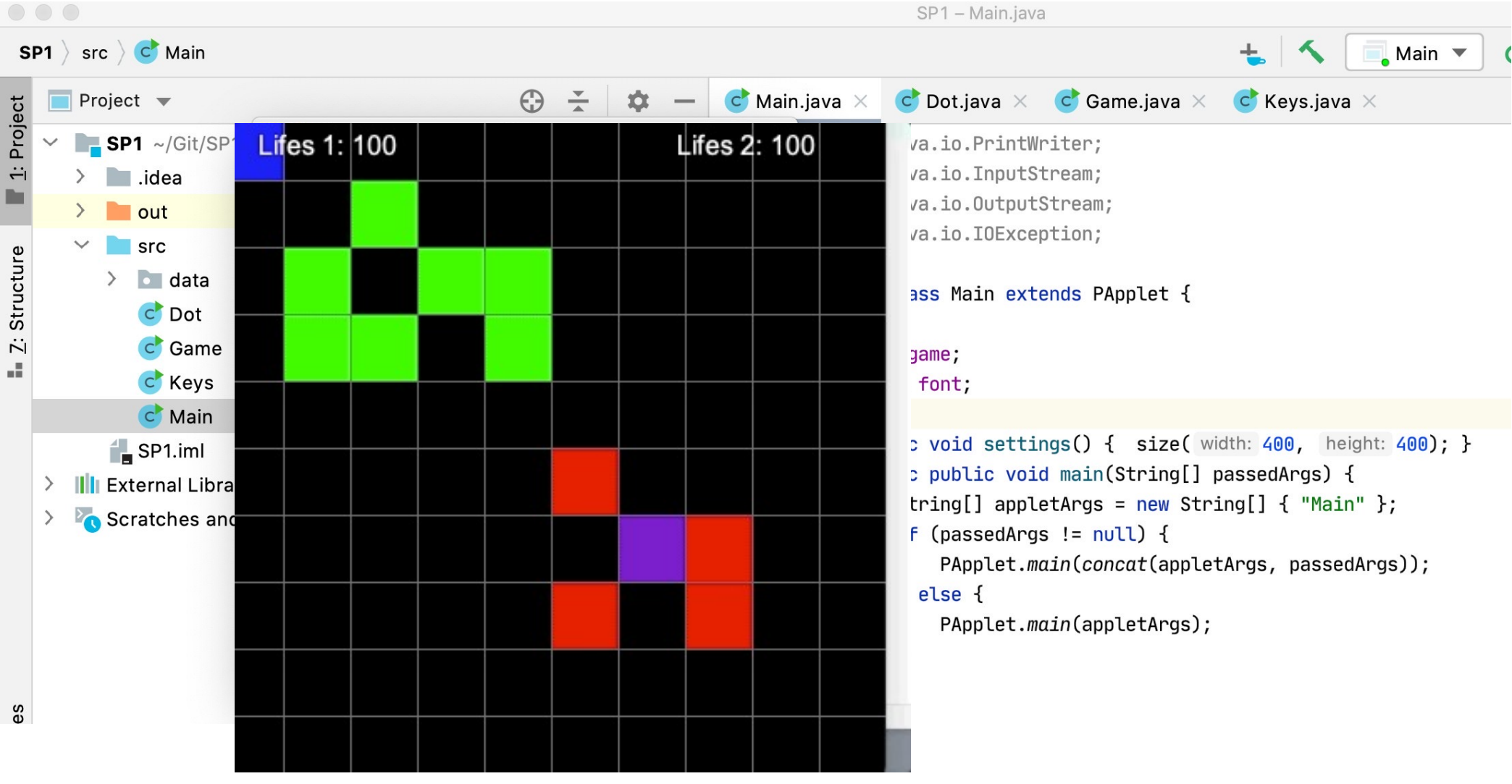
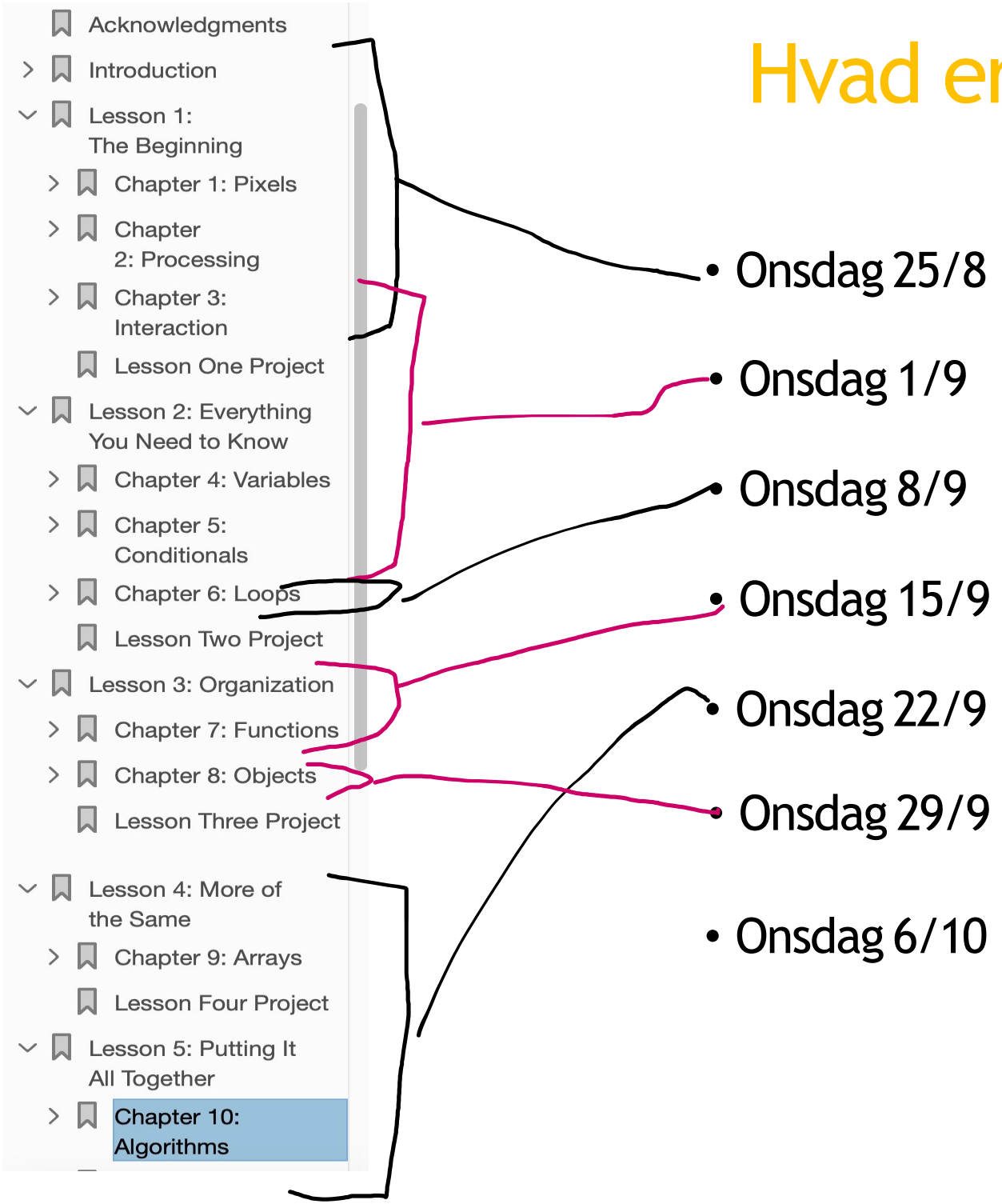
Processing - På vej til Java



Dagens tidsplan

1. Velkomst	2. planen	3. Processing i luften	4. Præs-runde I	5. Bogen kap 2	6. Præsrunde II / øvelser	7. Bogen kap 3	8. Næste gang
17:00 - 17:15	17:15 - 17:30	17:30 -	18:20	18:20 - 18:35	18:35 - 19:00	19:15- 19.30	19.30

Hvad er planen?



- Onsdag 25/8
- Onsdag 1/9
- Onsdag 8/9
- Onsdag 15/9
- Onsdag 22/9
- Onsdag 29/9
- Onsdag 6/10

Hvad er målet?

Kende til et IDE

Kende (lidt) til grafik

Kende til Processing

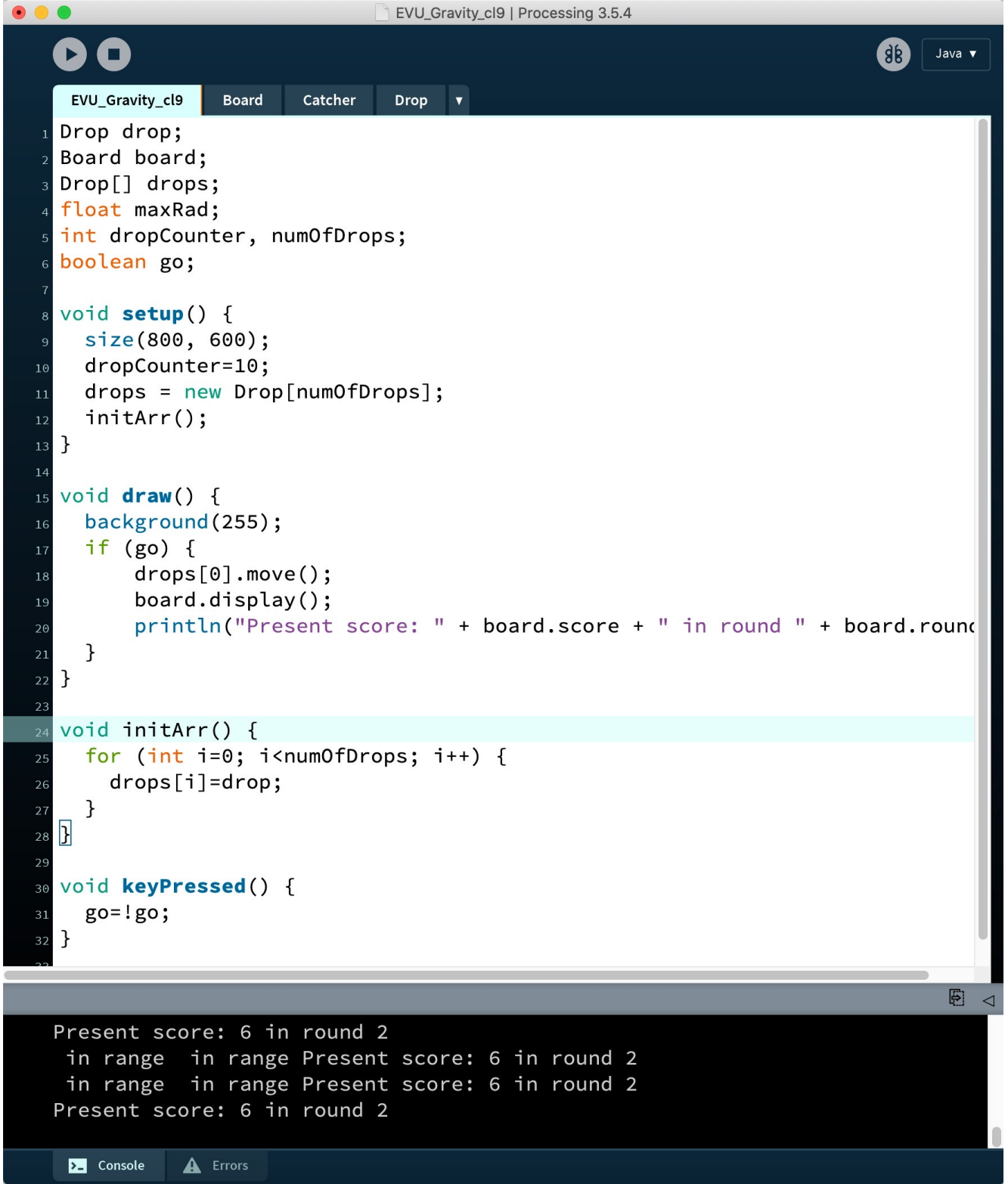
Kende til javamaskinen

Bruge Java's elementer:

- variabler
- operatorer
- betingelser
- loops
- lave metoder

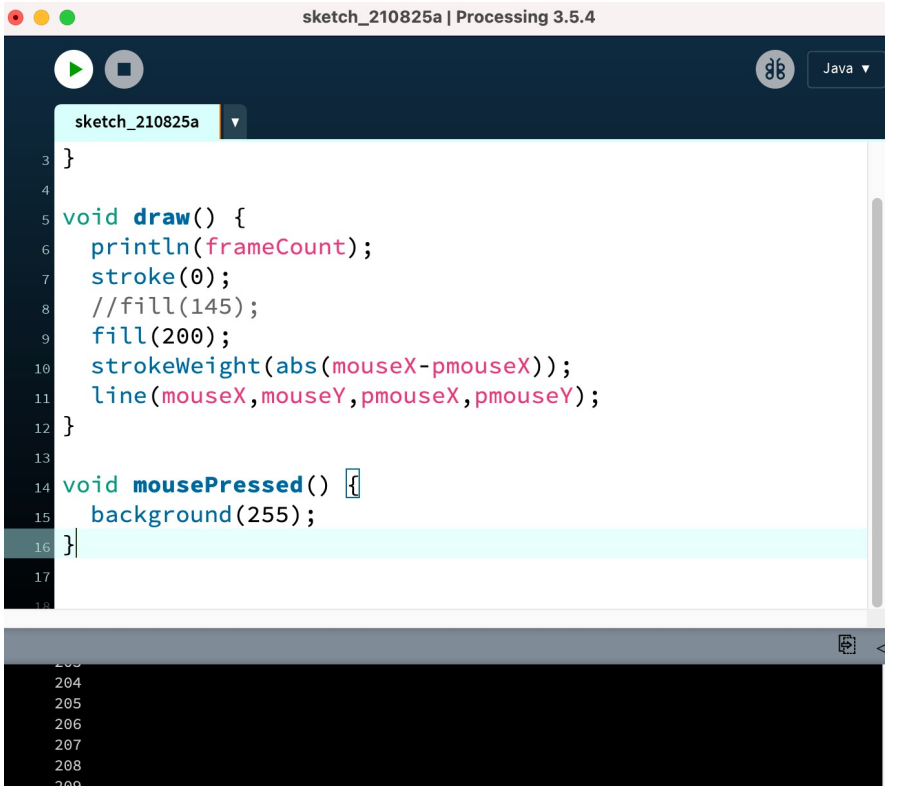
Kende (lidt) til klasser:

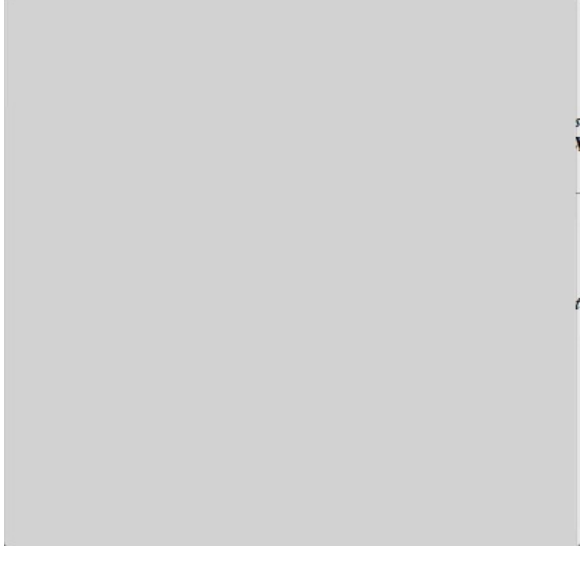
- lave objekter



Dagens mål

- Få Processing i luften
- Få præsenteret os for hinanden
- Få det ”praktiske” på plads
  - Teams, Zoom, Moodle
- Få en ide om målet med kurset
  - ”Raindrops”
  - Eksamensprojektet
- Få gennemgået kap 1 & 2 (evt 3)
- Kunne ”forstå” koden til højre
- Kunne kode eksempler nedenunder

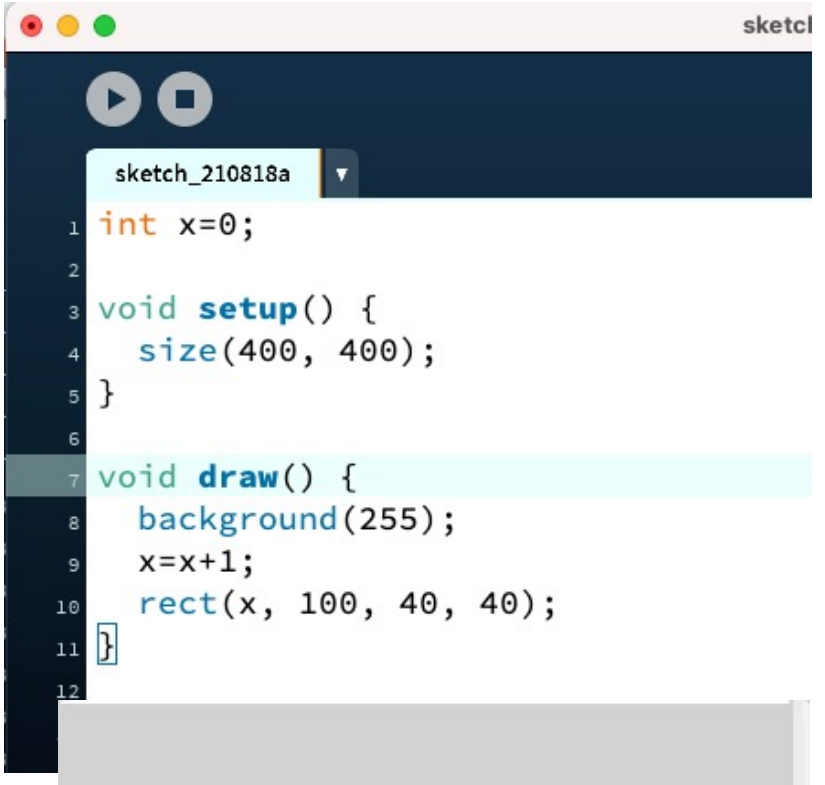




Ups … dagens mål

- …
- Kunne ”forstå” koden til højre

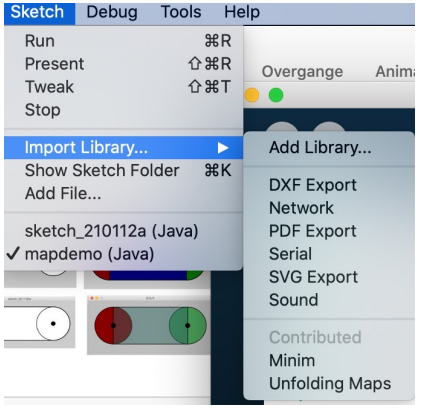
- ”Forstå”
  - Kunne anvende
  - Kunne forklare
    - I dybden
    - I bredden
- Læringsstile …
- Værktøjer
  - Moodle
  - Teams (?)
  - GitHub
  - Shiffman
  - Cheat sheets



Processing – digital intro (kap 2)

- Getting started ..
  - Installation
    - Windows & Mac
  - First example
  - First sketch
  - ”is it java?”
    - Export ...
  - Preferences
    - Code completion ..
  - Reference
- Koordinatsystemet, Shapes & Colors in action
  - Functions ...
    - size()
    - println()
  - Comments
- Øvelse 2-4

Præsentation - Google maps ...



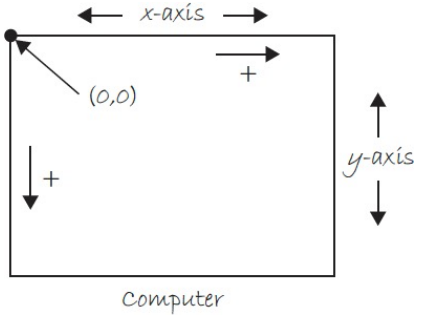
- Hent Unfolding_for_processing_0.9.6.zip fra https://github.com/cphwulf/EVU-uge3
- Pak ud og placér det "rigtige" sted
  - ./Processing/libraries/Unfolding/

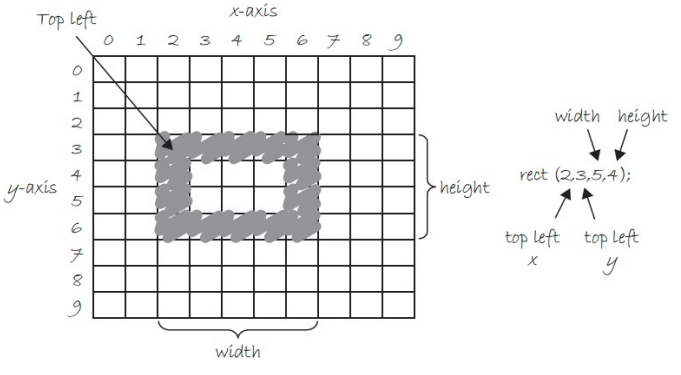
- Start en ny sketch og copy/paste mapdemo.pde
- Find koordinaterne på et sted som du vil præsenterer dig selv ud fra ...
- Find flg linjer og indsæt dine koordinater i stedet

```
lat=52.357995;
lng=4.868648;
location = new Location(lat,lng);
```

Processing – Analog intro (kap 1)

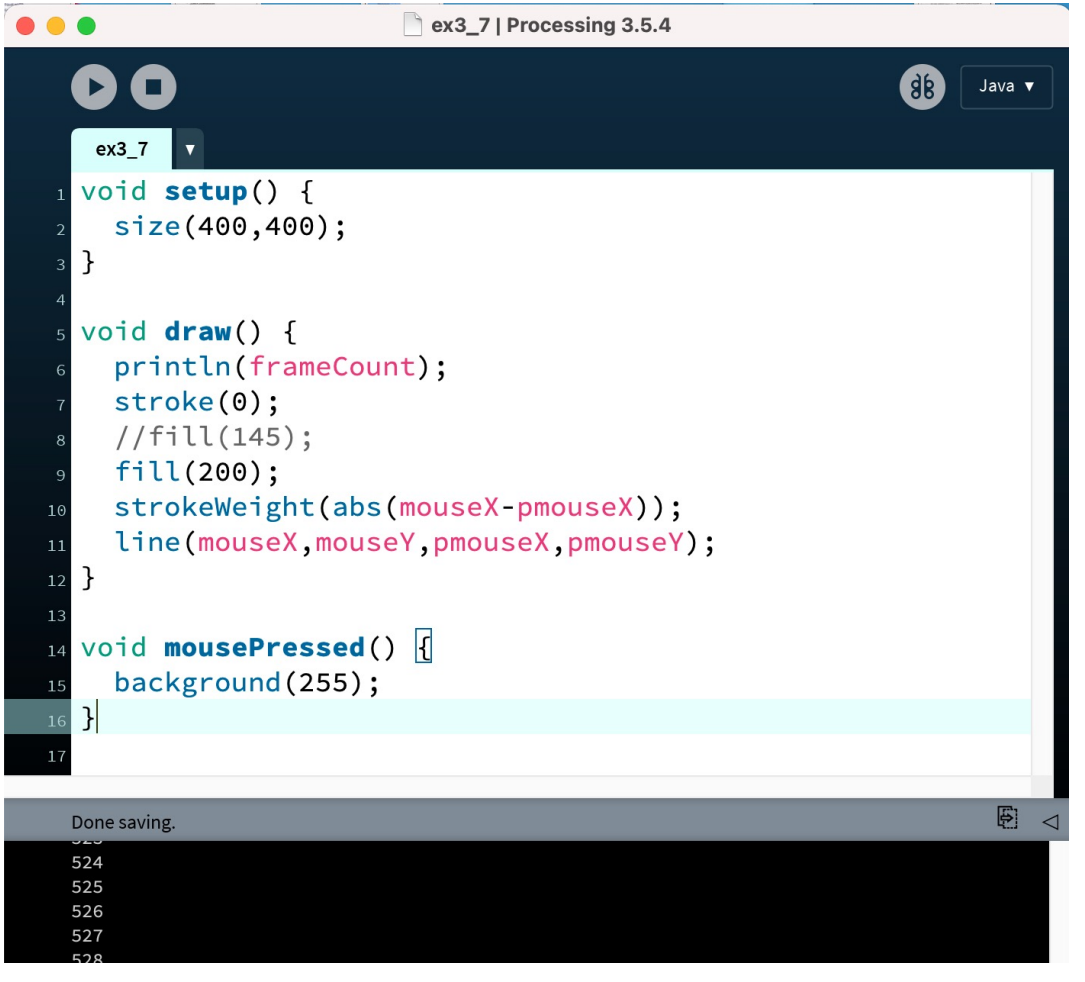
- Koordinatsystemet
  - ”ned ad” =y vokser
  - ”hen ad” =x vokser
- Basic shapes (with stroke, fill, strokeWeight)
  - rect(5,5,4,4)
  - circle(5,5,3)
  - point(5,5)
  - line(0,0,4,4)
  - (not arc!)
- Colors
  - Gray (0-255)
  - Color (RGB, HSB) & alpha
- Øvelser
  - 1-3
  - 1-4
  - 2-7





Processing -Interaction (kap 3)

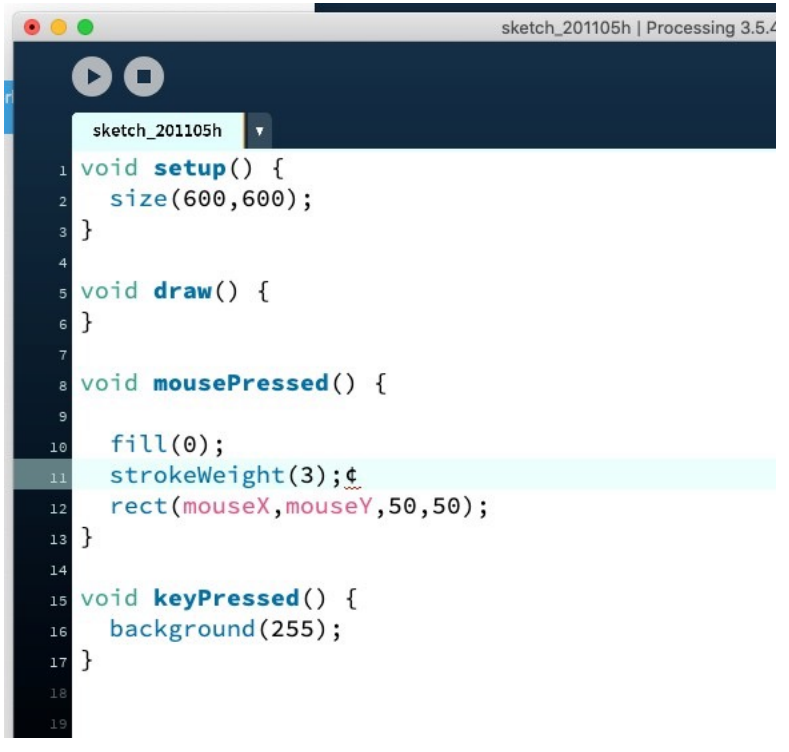
- The Flow
  - Setup()
  - Draw()
    - Internal loop
    - (framecounter)
  - Block of code {}
  - Variation: Mouse
    - mouseX,mouseY
    - Ex 3-2 (background)
    - pmouseX,pmouseY
    - Ex 3-4



Processing -Interaction øvelse I

Mere mus ..

- Interaction
  - mousePressed()
  - mouseReleased()
  - keyPressed()



Processing -Interaction øvelse II

1. Lav en mellem-tilfreds smiley som følger musen
2. Lav en glad smiley (brug arc)
3. Sørg for at ændring i size skalerer figuren (hint: tjek width)

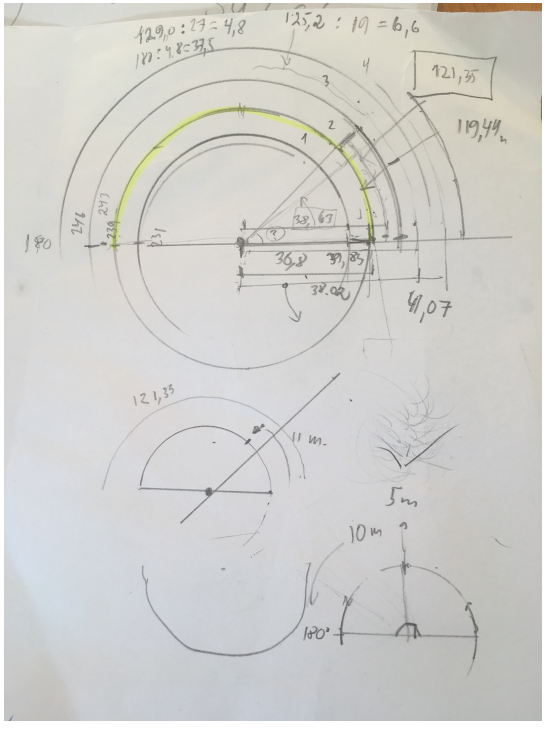
Næste gang ....

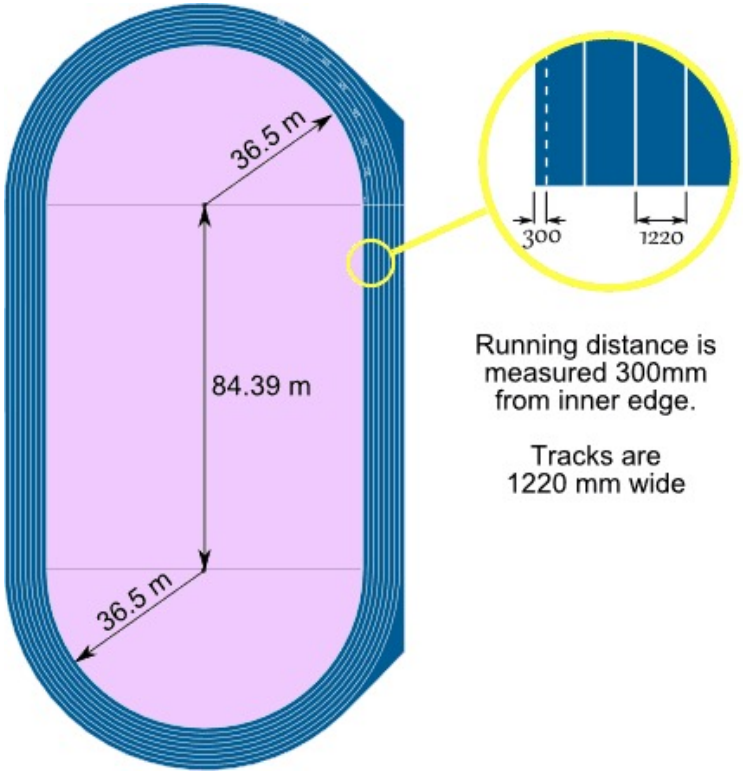
- Mere eller mindre
  - Hands-on?
  - ”klassisk” gennemgang
  - Live coding …

Øvelse - Atletikbanen - challenge

- Konstruér en 400 m atletikbane med 8 løbebaner. Buen laves vha arc-shapen

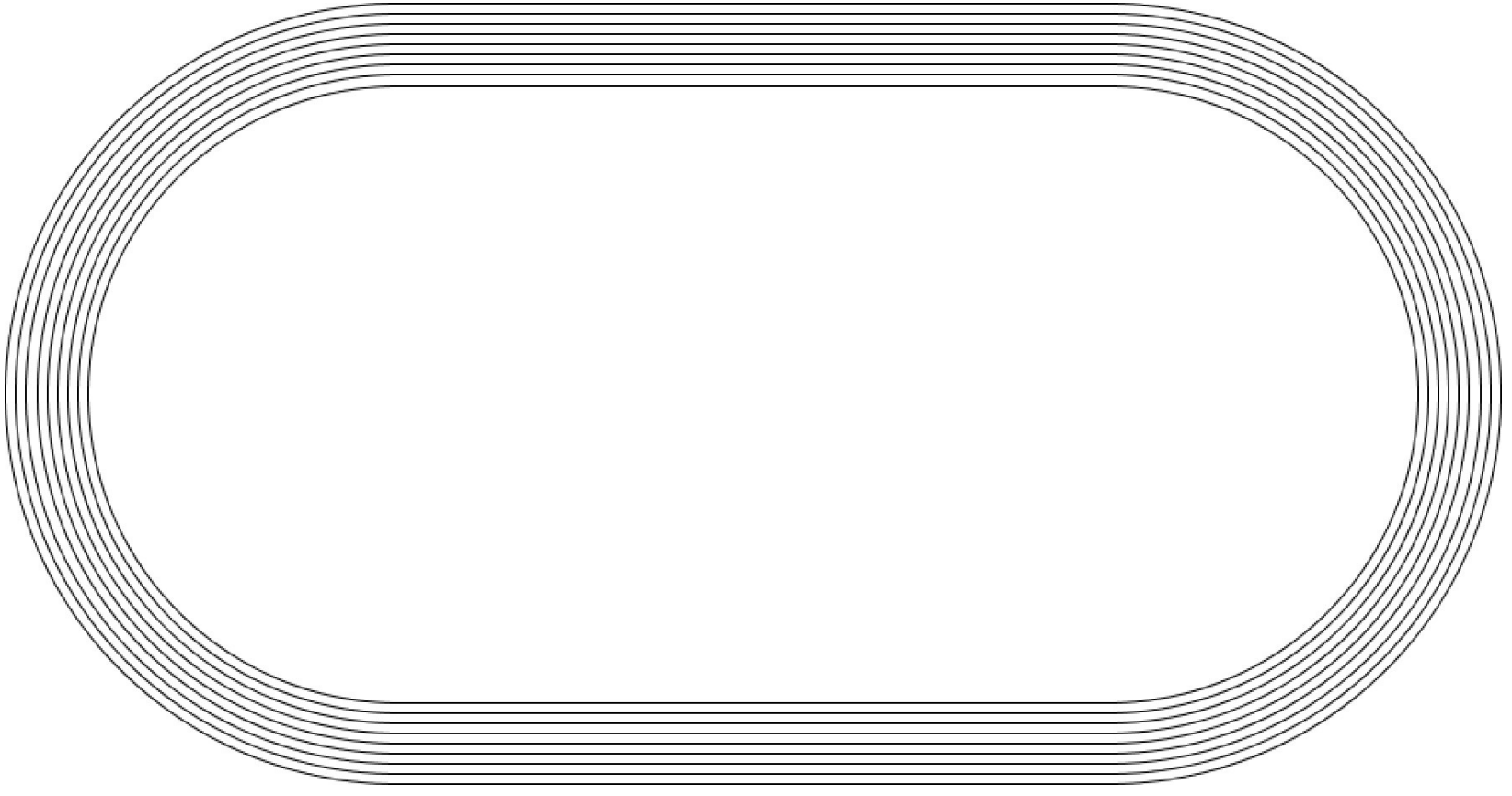
- Ekstra: Tilføj forskudt start





Øvelse - Atletikbanen - step 1

Øvelse - Atletikbanen - step 2



Øvelse - Atletikbanen - step 3, polar coords