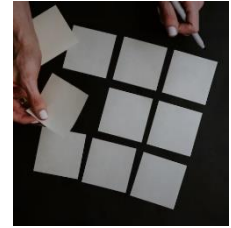# Opgave: Assignment Manager

Denne opgave træner problemløsning. Den er lidt tricky, men brug hjernen, vær kreativ og giv dig først og fremmest i kast med nogle forsøg for at løse opgaven. Du lærer en masse i processen.

PS 1: Lav det som "rugbrødskodning", hvor du er nødt til at tænke algoritmen igennem selv. Der findes automatiske værktøjer til det (som I får senere) – men pointen er at du (evt. sammen med din studiegruppe) knækker nødden selv.

PS 2: Løsningen er direkte brugbar i det projekt I får efter efterårsferien 😉

Du skal oprette nogle Assignment (lektie)-objekter og indsætte dem i en ArrayList af assignments sorteret efter hver assignments deadline, som er en LocalDateTime.

VIGTIGT: Hvis du kender til en måde at sætte dette op forholdsvist enkelt, så du med ét metodekald kan klare opgaven, så *glem dette et øjeblik* og prøv at løse opgaven *uden* denne fremgangsmåde. Opgavens pointen er at træne computational thinking. Det andet kommer senere på semesteret.

En event-arrangør har en liste af events, og han har brug for at listen altid er i kronologisk rækkefølge, så de tidligste events står først i listen og de seneste står sidst i listen.

1. Opret klassen Event med attributterne:
    a. LocalDateTime deadline
    b. String name (som er en kort beskrivelse af lektien – for enkelthedens skyld)

2. Opret klassen EventManager med attributten:
    a. ArrayList<Event> assignments

3. Skriv mail->run, så programmet:
    a. Instantierer assigments (som en tom ArrayList<Assignment>).

    b. Opretter 10.000 assignments med tilfældig deadline (inden for år 2023 eller 2024) samt tilfældigt navn (for eksempel fagene Programming, System Development, Organization og Technology samt opgavetyperne Solve assignment, Prepare presentation, Study curriculum, Solve challenge og Project work).

    Hver enkelt assignment-objekt skal indsættes i listen (assignments) på det sted, hvor den passer ind ift. deadline, så dine lektier altid står i rækkefølge efter deadline.

    TIP: Lav 10 post-its med tilfældige deadlines og leg computer, så du forstår hvordan algoritmen skal "tænke".

    c. Udskriver listen i den rækkefølge lektierne er blevet indsat.

Se eksempel på udskrift på næste side.

```
C:\Users\PAAG\.jdks\openjdk-20.0.1\bin\java.exe "-javaagent:C:\Program Files
2023-01-01T08:15: Programming: Solve assignment, page 1078
2023-01-01T08:30: System development: Prepare presentation, page 472
2023-01-01T08:45: Organization: Study curriculum, page 1083
2023-01-01T09:15: Programming: Project work, page 235
2023-01-01T10:00: Organization: Project work, page 195
2023-01-01T10:15: System development: Project work, page 557
2023-01-01T10:15: Technology: Prepare presentation, page 682
2023-01-01T10:15: Technology: Study curriculum, page 169
2023-01-01T10:30: Programming: Solve challenge, page 708
2023-01-01T10:45: Technology: Solve challenge, page 136
2023-01-01T12:45: Organization: Prepare presentation, page 969
2023-01-01T13:00: System development: Solve assignment, page 369
2023-01-01T13:30: Programming: Project work, page 747
2023-01-01T13:45: Organization: Prepare presentation, page 823
2023-01-01T15:30: Organization: Solve assignment, page 1110
2023-01-02T08:00: System development: Solve assignment, page 754
2023-01-02T08:30: Technology: Solve challenge, page 706
2023-01-02T08:30: Technology: Project work, page 146
2023-01-02T08:45: Organization: Solve assignment, page 144
2023-01-02T10:00: System development: Project work, page 1155
2023-01-02T10:30: Organization: Solve assignment, page 460
2023-01-02T11:30: System development: Project work, page 685
2023-01-02T13:00: System development: Project work, page 342
2023-01-02T13:15: Technology: Project work, page 465
2023-01-02T13:15: Organization: Project work, page 849
2023-01-02T14:15: System development: Solve assignment, page 165
2023-01-02T14:15: System development: Study curriculum, page 550
2023-01-02T14:15: Technology: Solve challenge, page 368
2023-01-02T15:00: Technology: Solve assignment, page 661
2023-01-02T15:30: Programming: Project work, page 825
2023-01-02T15:30: Programming: Project work, page 894
2023-01-03T09:00: Organization: Prepare presentation, page 974
2023-01-03T09:30: Organization: Project work, page 135
2023-01-03T10:00: Programming: Project work, page 961
2023-01-03T10:15: Technology: Prepare presentation, page 348
2023-01-03T10:30: Organization: Prepare presentation, page 590
2023-01-03T11:00: System development: Solve assignment, page 582
2023-01-03T11:15: Technology: Solve assignment, page 223
2023-01-03T12:00: System development: Solve challenge, page 1069
2023-01-03T12:00: Technology: Solve challenge, page 1080
2023-01-03T12:45: Programming: Project work, page 949
2023-01-03T14:15: Programming: Prepare presentation, page 906
2023-01-03T14:30: Programming: Project work, page 229
2023-01-03T14:30: Programming: Study curriculum, page 1137
2023-01-03T14:30: Technology: Project work, page 325
2023-01-04T08:30: Programming: Solve challenge, page 976
2023-01-04T09:30: Technology: Study curriculum, page 871
2023-01-04T10:30: Technology: Solve challenge, page 391
2023-01-04T11:30: System development: Prepare presentation, page 736
2023-01-04T11:45: Programming: Study curriculum, page 886
2023-01-04T12:45: System development: Project work, page 741
2023-01-04T14:00: System development: Project work, page 823
2023-01-04T14:00: Programming: Study curriculum, page 207
2023-01-04T14:15: System development: Study curriculum, page 720
2023-01-04T15:00: Organization: Study curriculum, page 557
2023-01-05T08:30: Programming: Prepare presentation, page 197
2023-01-05T09:30: Organization: Prepare presentation, page 1110
2023-01-05T09:45: Organization: Solve challenge, page 1014
2023-01-05T10:00: Organization: Solve assignment, page 317
2023-01-05T10:15: Organization: Prepare presentation, page 649
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