



UNIVERSITY OF  
COPENHAGEN

# Ninth exercise class

Introduction to numerical programming and analysis

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Jonathan Wenzel Pedersen

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1. Plan for today
2. Inaugural Project feedback
3. Data Project

## **Plan for today**

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# What are we doing today?

Today we will be working with Data Project, which is due on Sunday.  
I will also go through a few general feedback on the Inaugural Project.

## Inaugural Project feedback

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# Inaugural Project

Your Inaugural Projects were all really good. Your all were close or got the correct answers and you only need to work on the presentation a little.

When changing your Inaugural Project and for the Data Project it would be an advantage if you used a method similar to this for explaining the code:

We solve the model for different combinations of alpha and sigma and backout the choiceset  $L_M, H_M, L_F, H_F$  that maximizes utility for the household. We solve the model based on parameters and constraints on individual hours and household hours worked.

1. We import the model1 from HouseholdSpecializationModelClass()
2. We create lists of  $\alpha$  and  $\sigma$ -values
3. We create an empty list for relative\_hours worked
4. We solve the model for different combinations of alpha and sigmas by calling the solve\_discrete def in ModelClass
5. We determine relative hours worked in the home by dividing optimal hours for females by optimal hours for males
6. We put relative hours into the empty list.
7. We put relative hours into a dataframe and make it into a latex table
8. Possible extension: create 3D plot over combinations of alpha, sigmas and relative hours.

# Data Project

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# Data Project

For the project you should use:

- Import data from an online source
- Apply data cleaning and data structuring methods
- Present the data visually
- Apply data analysis methods.

