



Peer-programming Taster Session

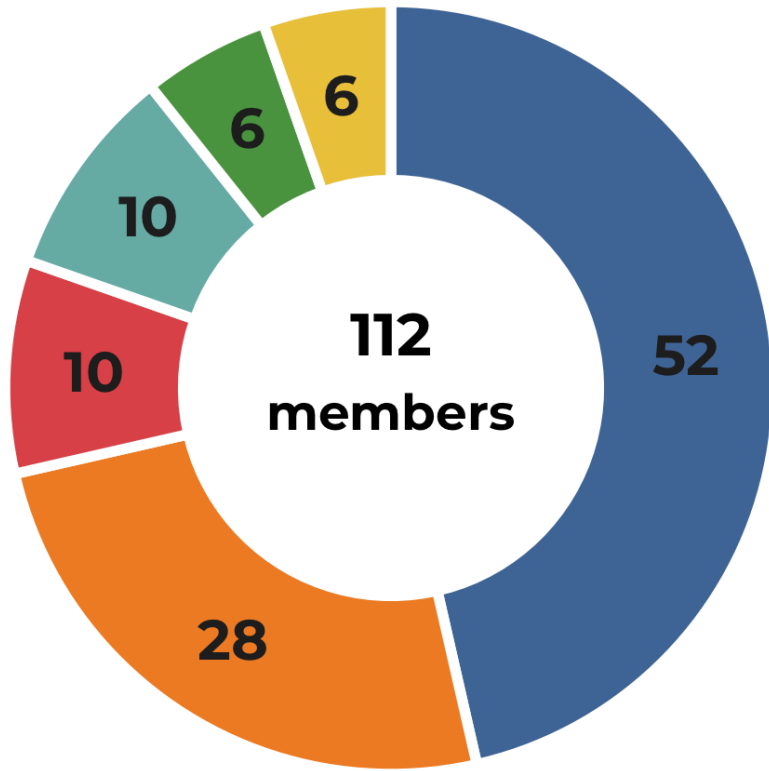
10th Feb 2022

5.00pm	Welcome and Introduction to Code Club
5.05pm	Introduction to Peer Programming
5.10pm	Discuss computing problems
5.20pm	Form groups of 2-3 people to work on a selected problem
5.30pm	<i>Peer-programming</i> : groups work on their selected problem
6.20pm	Wrap up
6.30pm	Closing

This activity is sponsored by the UCL eResearch Domain

Housekeeping

- **Safety** - fire exits, toilets, COVID
- **Privacy** - don't share personal info / sensitive data, don't record others
- **Consent** - recording / screenshots / photos from Code Club
- **Flexibility** - feel free to join / leave
- **Help** - questions / issues? Talk to us :)
- 8 rules of Code Club – **be kind** :)



- Student
- Post-doc / fellow / associate
- Research assistant
- Data / software professional
- Principal investigator
- Other

Who we are

The **UCL Code Club** is a volunteer-led group focusing on *good coding practice and reproducibility in computational research*.

est. Summer 2019 by a bunch of geeks, nerds, and geeky nerds at the UCL Institute of Health Informatics united by a *desire to code* 🙌

Open to everyone *whatever language whatever level*

More than **200 students & staff** from across UCL have joined us as per Feb 2022

Code Club history (abridged)



UCL ChangeMakers award 2020
Researcher-led initiative award 2020
eResearch community-based initiatives award 2021
eResearch community-based initiatives 2022

IHI Code Club launch



ICH Code Club launch



UCL Code Club launch



Code Clubs go virtual



Next on UCL Code Club

- Peer-programming & social
 - Fortnightly (2nd & 4th Thursdays, 4.30-6.30 pm)
- Workshop series season 4 (TBA)
 - Monthly screening
 - Invited speakers (academia & industry)
 - Hands-on coding demonstration & practical

Events might be held in-person, on-line, or both

We are looking for speakers, organisers, and collaborators from across UCL and beyond!

Contacts



ihicodeclub@ucl.ac.uk
ichicodeclub@ucl.ac.uk



IHI Code Club
ICH Coding Club



@UCL_CodeClub



github.com/IHI-Code-Club
github.com/UCLichCodeClub



ihi-code-club.github.io/handbook

what is **Peer-Programming**?

- a.k.a. pair-programming
- Common technique used in agile software development
- Agile is a mindset – one team, one goal
- Everyone contributes, divide the goal into many tasks
- Developers may work individually or in pairs on a task
- Benefits – faster, less bugs, code quality, code skills, morale



Image from <https://tuple.app/pair-programming-guide>

How?

Define task --> Assign yourself --> Partner assigned (both have relevant skills)



- Co-pilots in the same airplane

Work on each sub-task together -
one does the flying/typing and the other gives
directions/support at the same time (may swap roles)

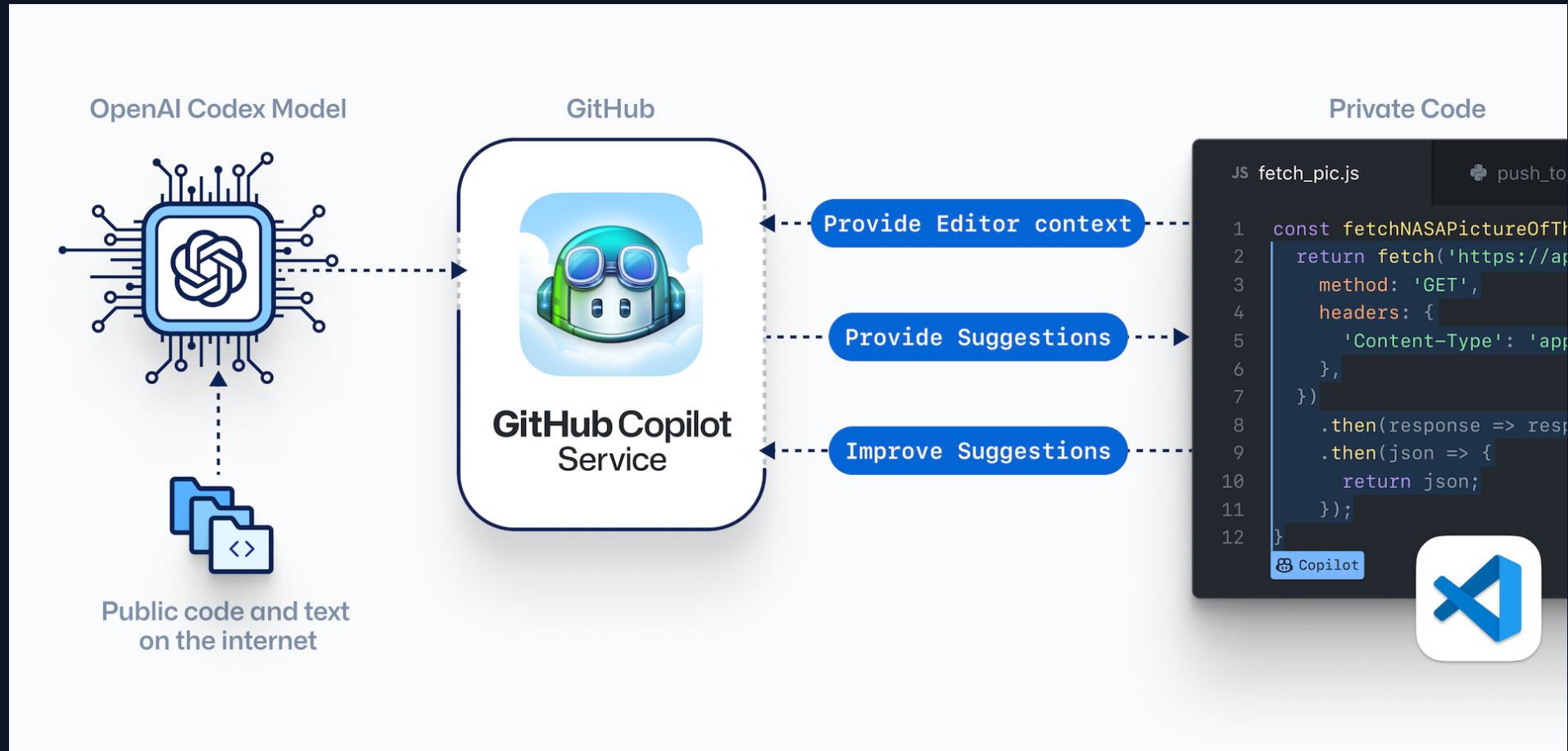


- Pilots in different airplanes

Split sub-tasks, work separately -
set an end point to both stop, meetup, and check each
other's work before merging



Don't fly solo.



But what about in academia?

- Most researchers work independently
- Sometimes work together on a project
- Split / share tasks – share skills, knowledge, tools

How examples:

- Meet to discuss plan, then work separately
- Sit next to each other and work together
- Code Club peer programming - troubleshooting

Objectives of these sessions

- Work on your real tasks
- Find others with skills (coding buddies)
- Learn to work together
- Dedicate time to code (alone or with others)

You can work solo if you want – just like a *Shut Up & Write* session

Activity: Define your task

In-person

- Get some post-it notes
- Think about and write a specific task you want to work together on
- Stick on wall when done

Online

- Go on menti.com - code **3219 3406**
- Think about and post a specific task you want to work together on

Try to explain the task in an easy-to-understand way

Highlight key **skills/languages/topics**

e.g. "Run a survival analysis in R"

"Split training and test datasets for my ML project using python"

"Draw a Kaplan-Meier curves stratified by gender in Stata"

"Submit a job array to the UCL High-Performance Computing cluster"

"Write documentation for software I've been developing"

Activity: Form your pair/group



In-person

- Read other post-it notes
- Write down your name if you're interested / can help
- Tasks with the most votes, work on first
- Chosen tasks, form a table and chat

Online

- Join your assigned breakout room
- Chat to potential buddies
- Tell us if you need a new room

You don't need to be an expert – *Google, StackOverflow*

You can work solo if you want

You can just “watch & learn”

Activity: Peer Programming

- Pilot (person whose task is chosen) **explain the task**
- **Simplify** into steps
- **Decide how to work:**
 - work together – screenshare
 - work separately – split and assign sub-tasks, choose a stopping point (e.g. after 10 minutes or after sub-task complete) and come back together when done, explain and review what you've done

Safety notice: do not share **private data / personal info**,
do not save if accidentally seen

You can **take a break anytime** or swap tasks/groups

Wrap up

We hope this was useful!

Feedback for next time?

Tell us now or through:



ihicodeclub@ucl.ac.uk



IHI Code Club

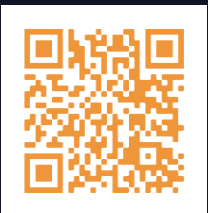
Next peer-programming session:

Thursday 24th Feb

16.30 social - 17.00 start - 18.30 end (BST)

UCL (tbc) AND Zoom

Eventbrite



@UCL_CodeClub



ihi-code-club.github.io/handbook



github.com/IHI-Code-Club