Programming Parallel Computers

Jukka Suomela · Aalto University · ppc.cs.aalto.fi

Part 1B: Course practicalities

Course workload and activities

- Intensive course, 6 weeks
- 5 credits / 6 weeks ≈ ***22 hours of work per week***
- **Lectures:** Monday
- **Exercise sessions:** Tuesday & Friday
- **Discussions:** every day in Zulip
- **Deadline for exercises:** ***Sunday at midnight***

Passing the course

- Only one required part: ***solve weekly exercises***
  - solutions that are **correct and fast** give points
- Course material at ***ppc.cs.aalto.fi***
- Exercises at ***ppc-exercises.cs.aalto.fi***

Workflow

ppc-exercises.cs.aalto.fi

Instructions, code templates

Workflow

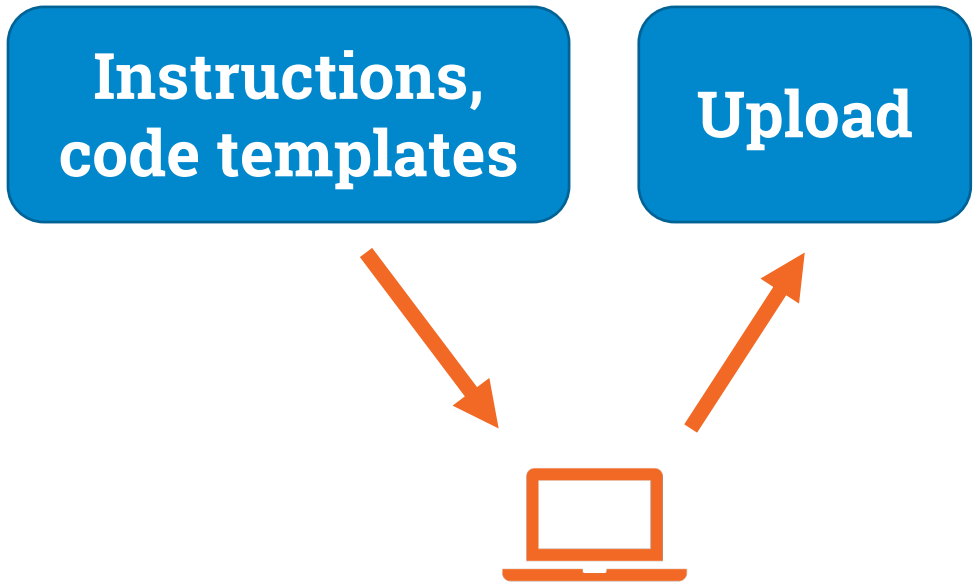
ppc-exercises.cs.aalto.fi

Instructions, code templates

Develop a solution locally on your own computer, or use e.g. some Aalto Linux computer that you can access remotely

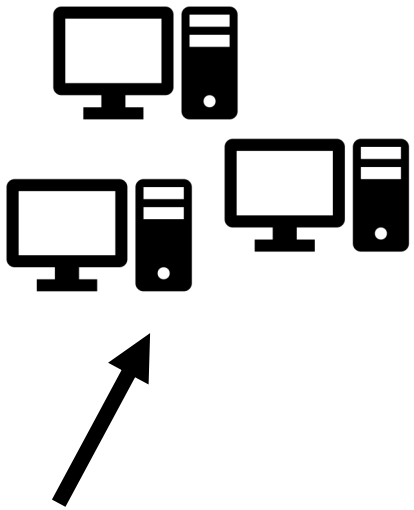
Workflow

ppc-exercises.cs.aalto.fi



You only need to upload one C++ source file

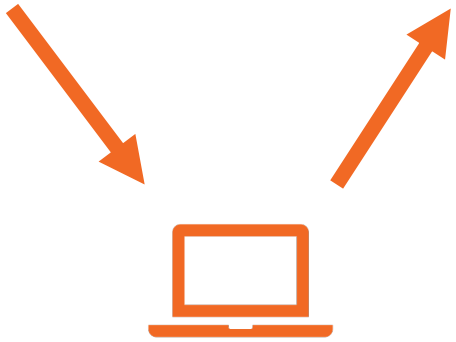
Workflow



ppc-exercises.cs.aalto.fi

Instructions, code templates

Upload

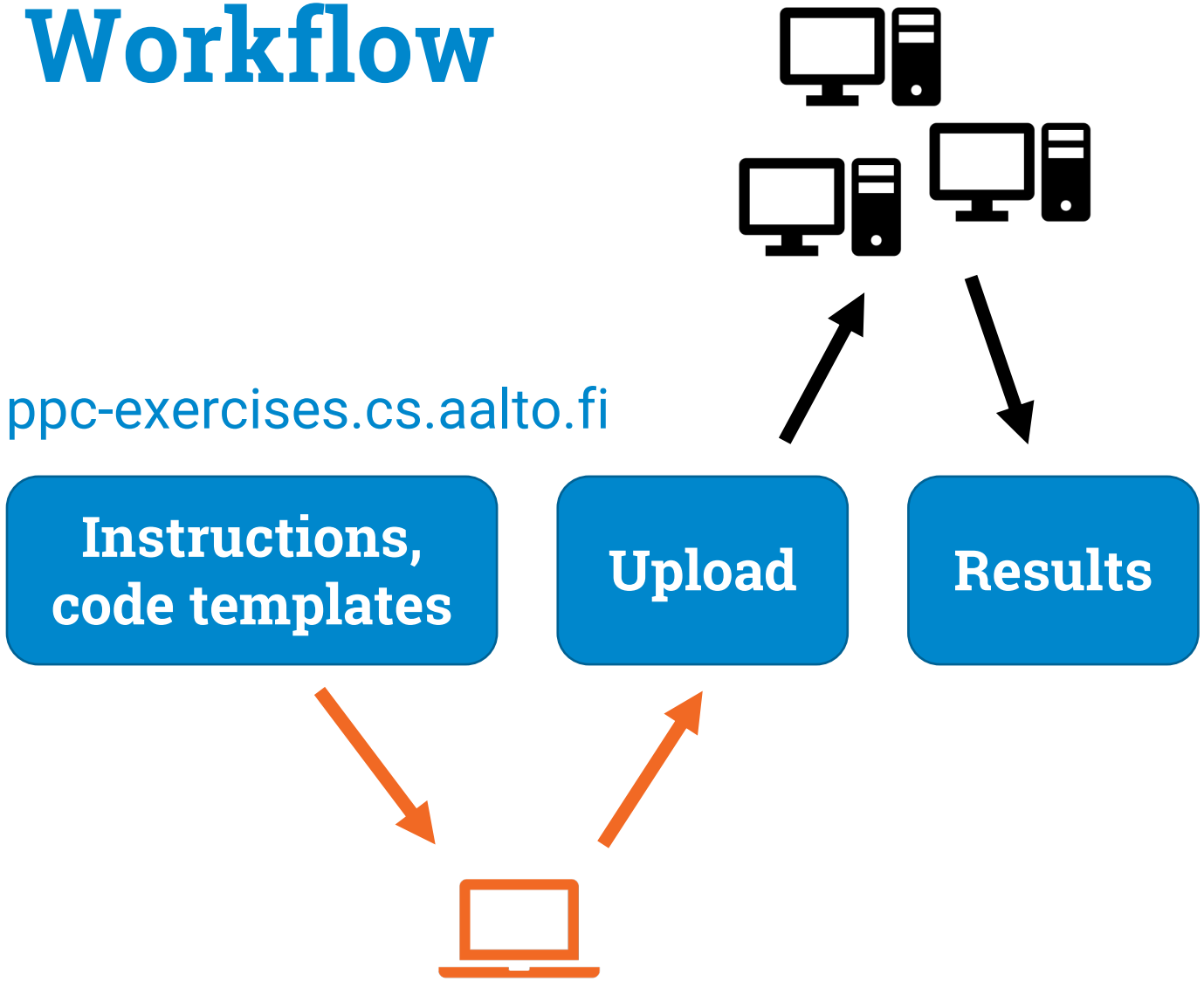


Dedicated computers that automatically test your solution

(a few minutes)

Hardware & software:
ppc-exercises.cs.aalto.fi/help/computers

Workflow



Did it compile correctly?

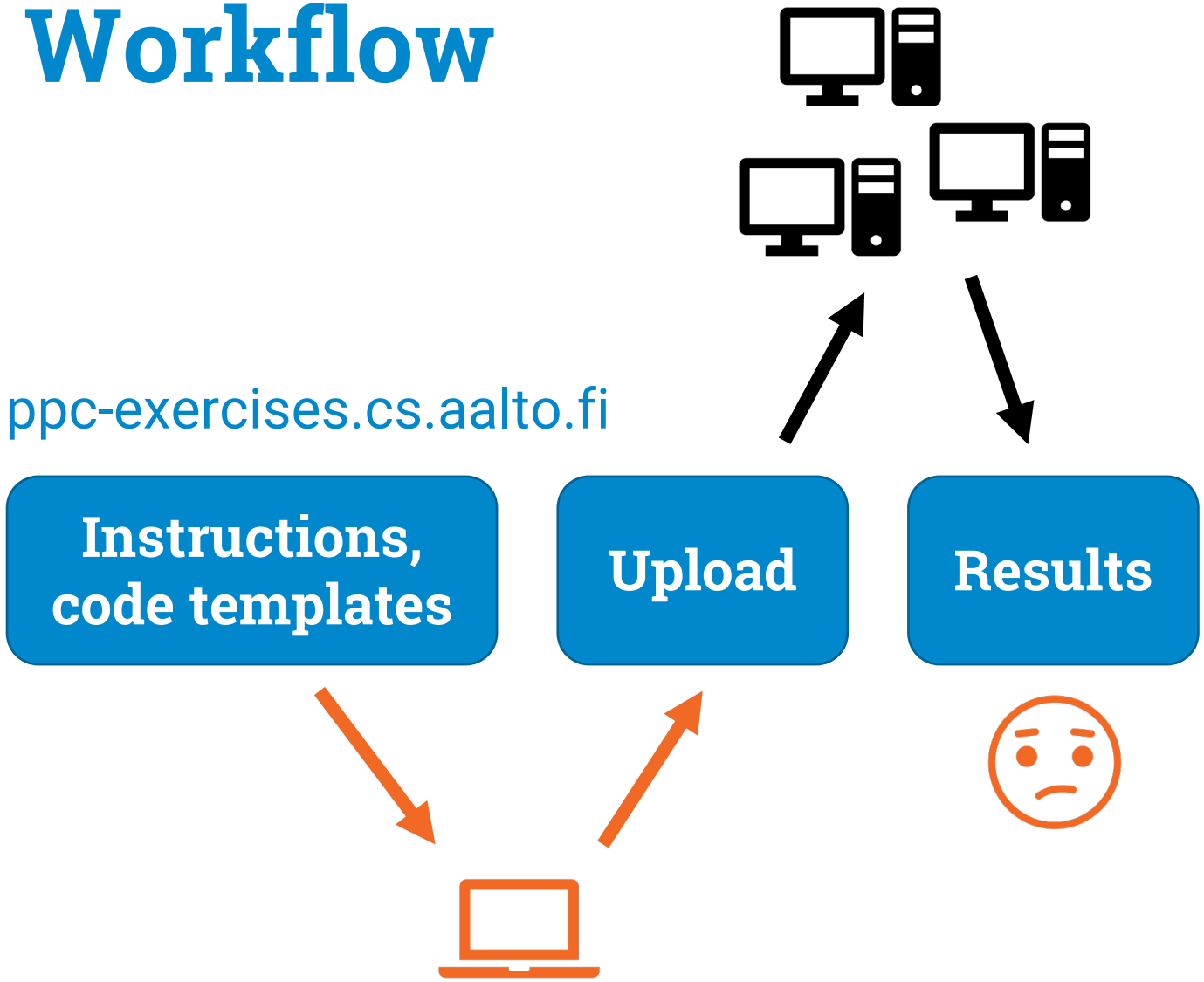
Did it pass all tests?

How fast was it?

Measurements, assembly code …

How many points you will get — assuming you have followed instructions and there are no bugs

Workflow



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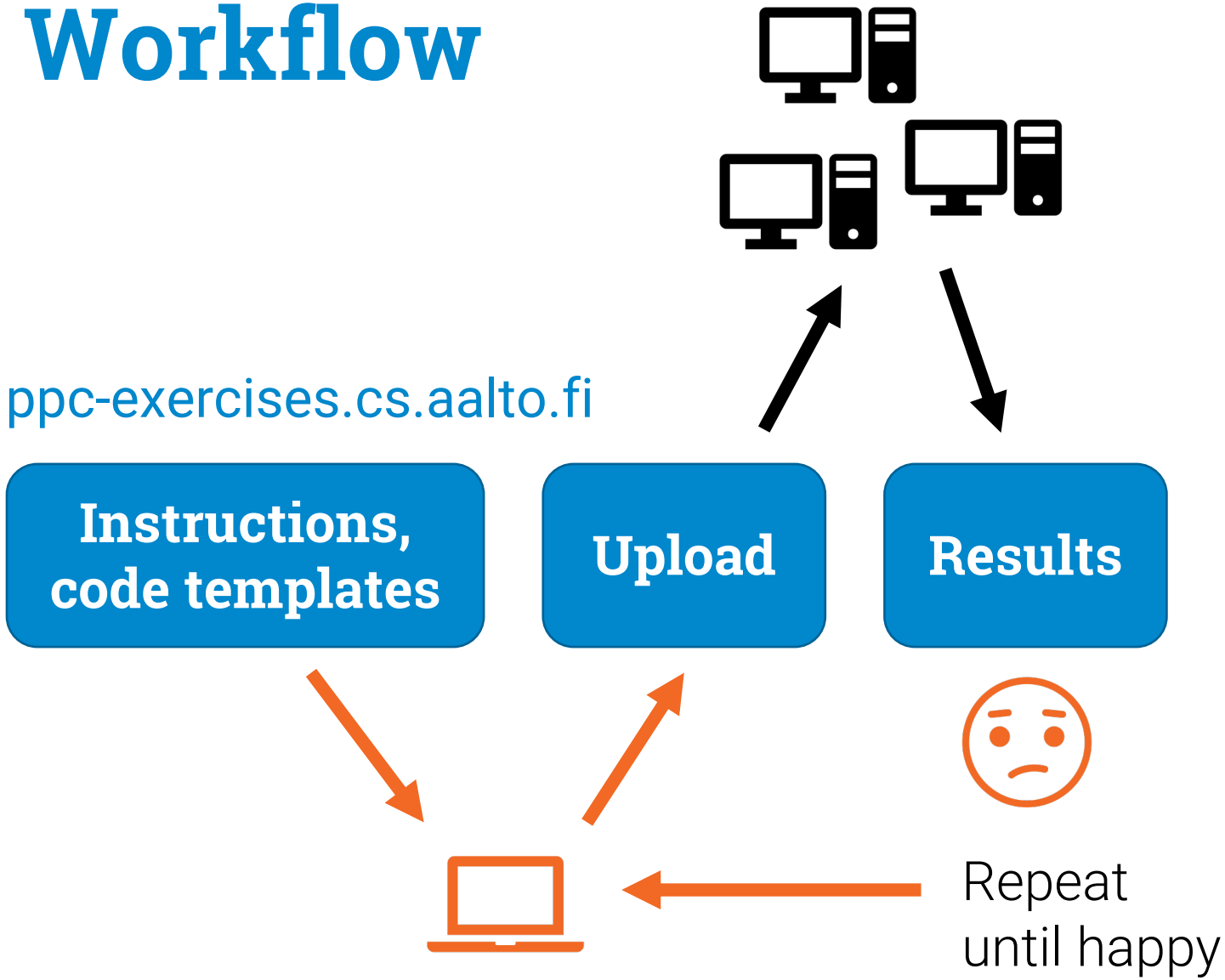

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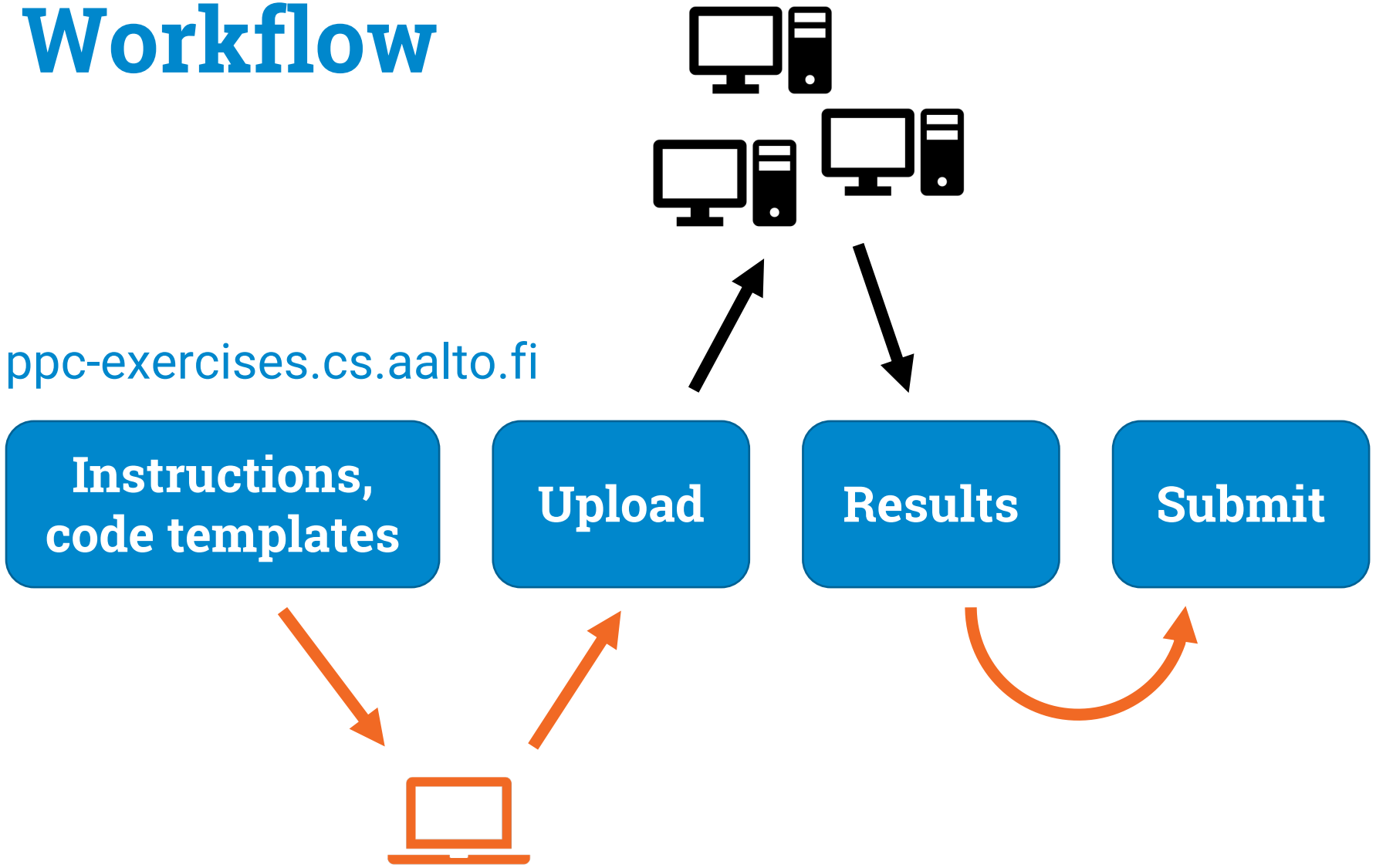
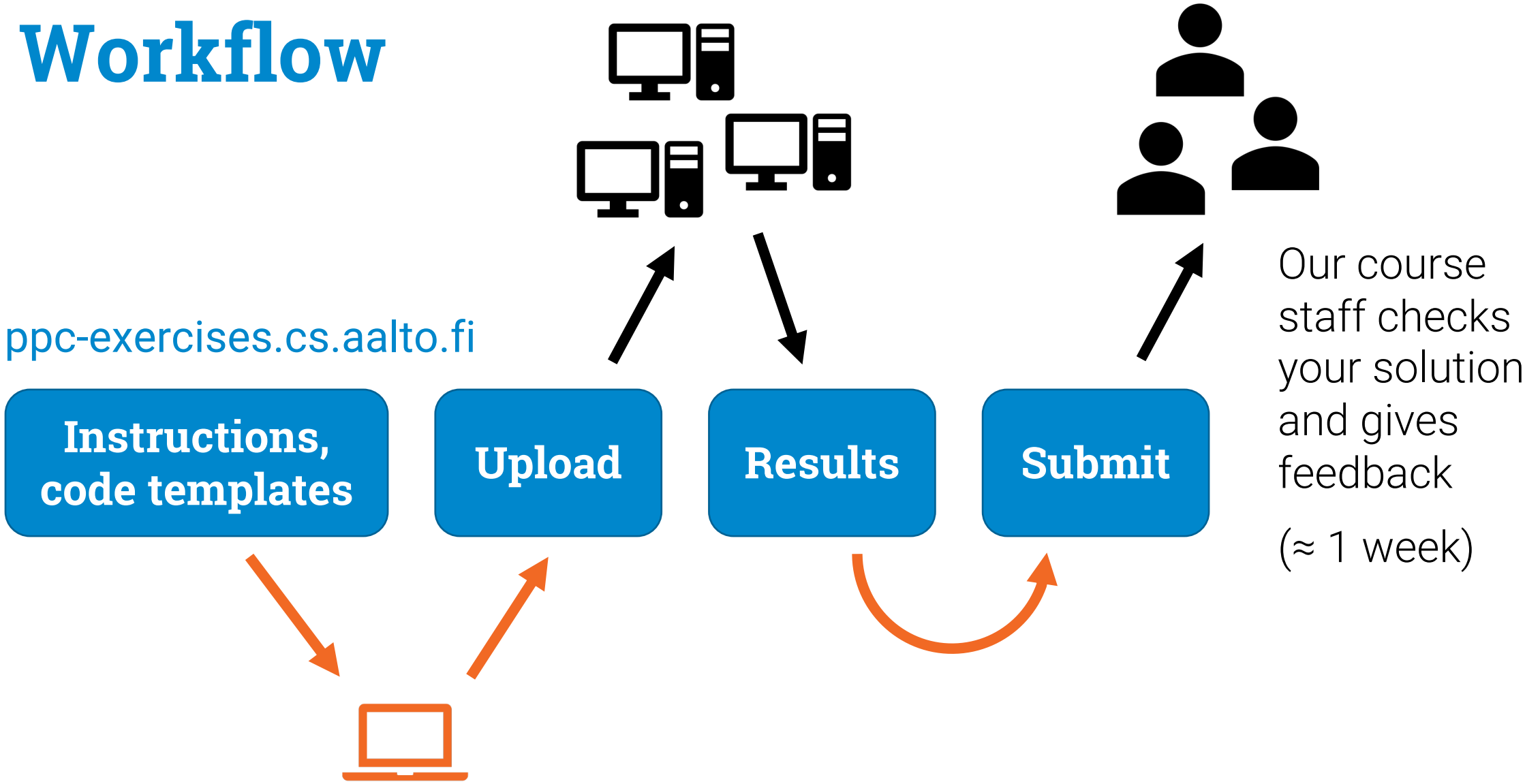

ppc-exercises.cs.aalto.fi
Instructions, code templates
Upload
Results
Submit

Workflow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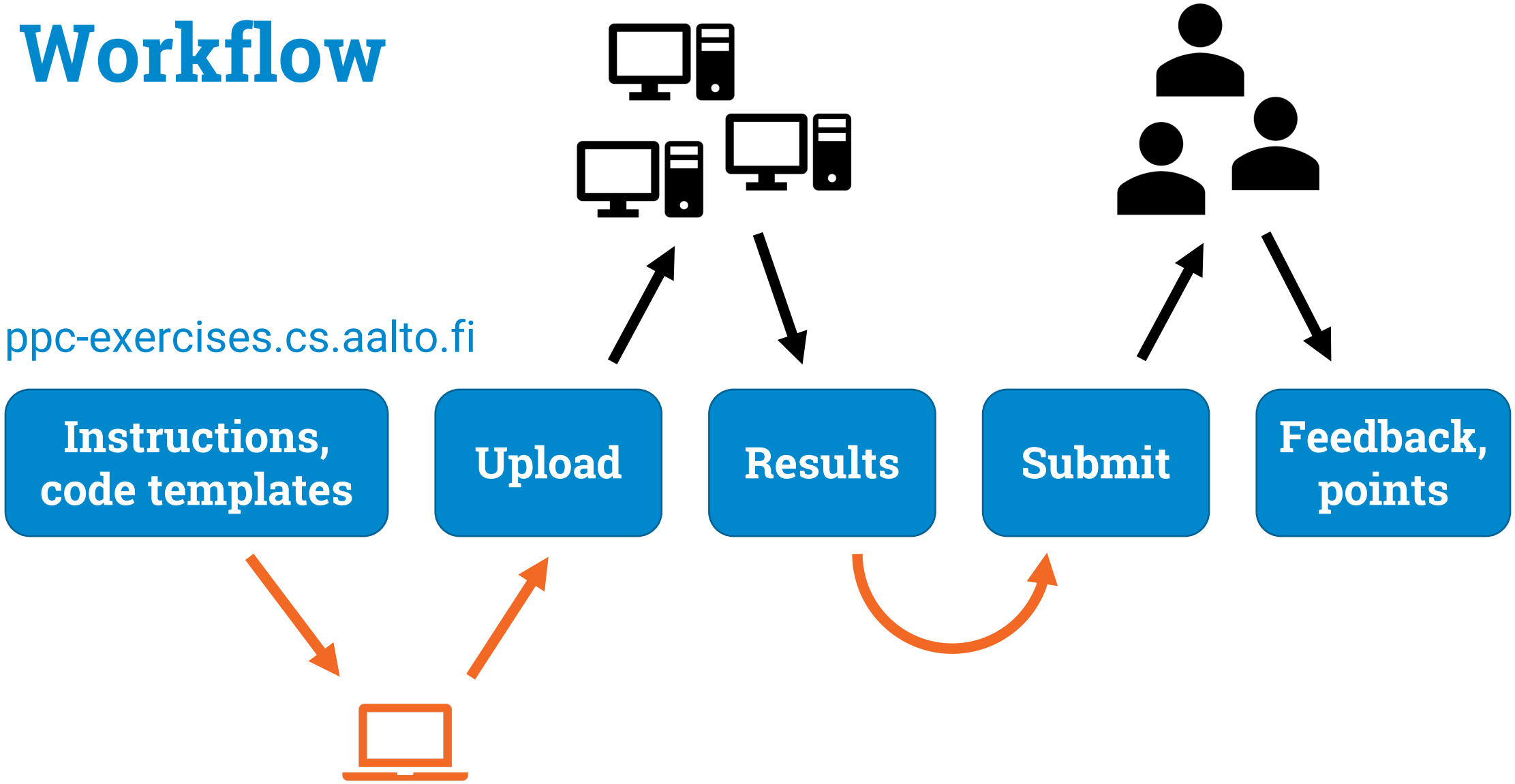
Submit
Our course staff checks your solution and gives feedback
(≈ 1 week)

Workflow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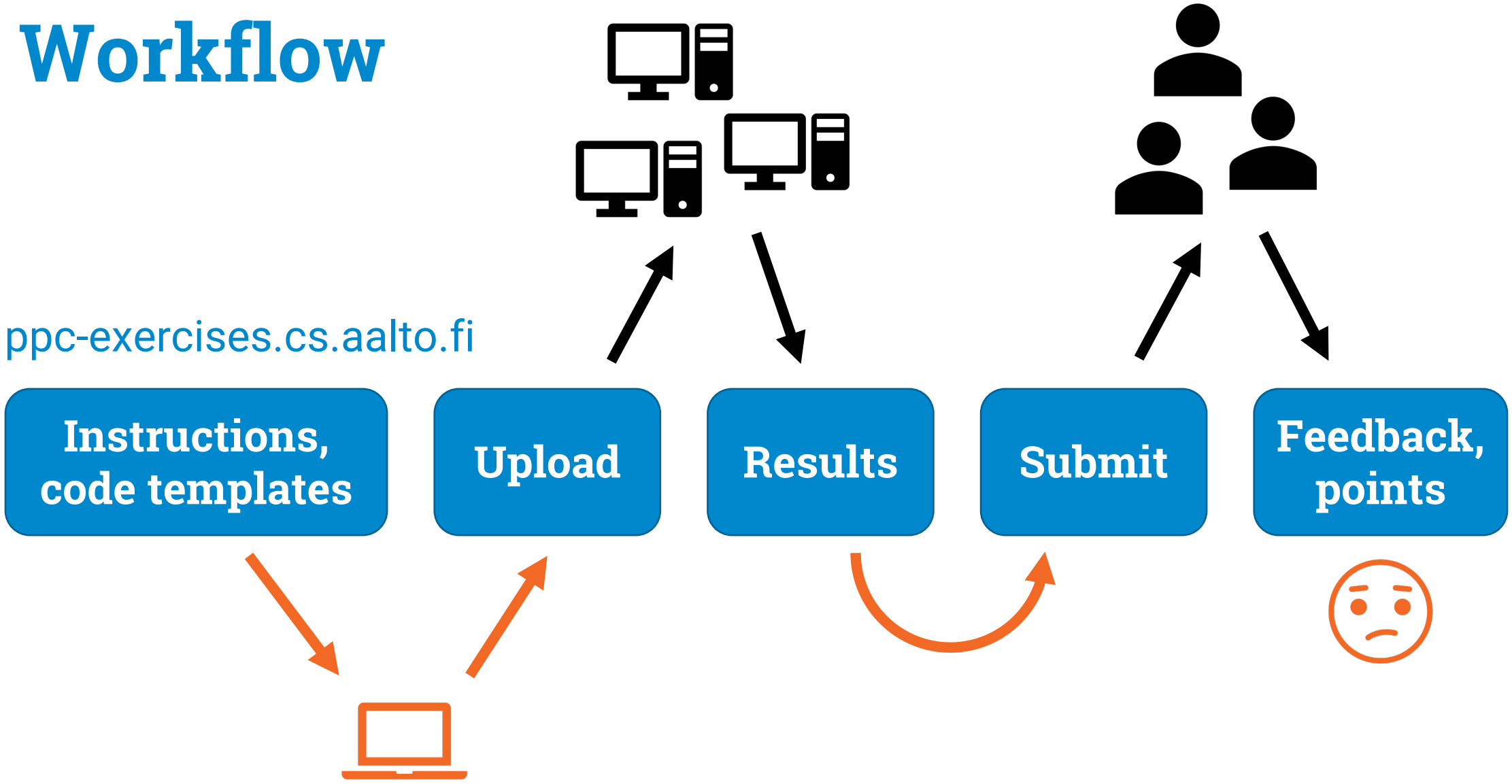
Feedback, points

Workflow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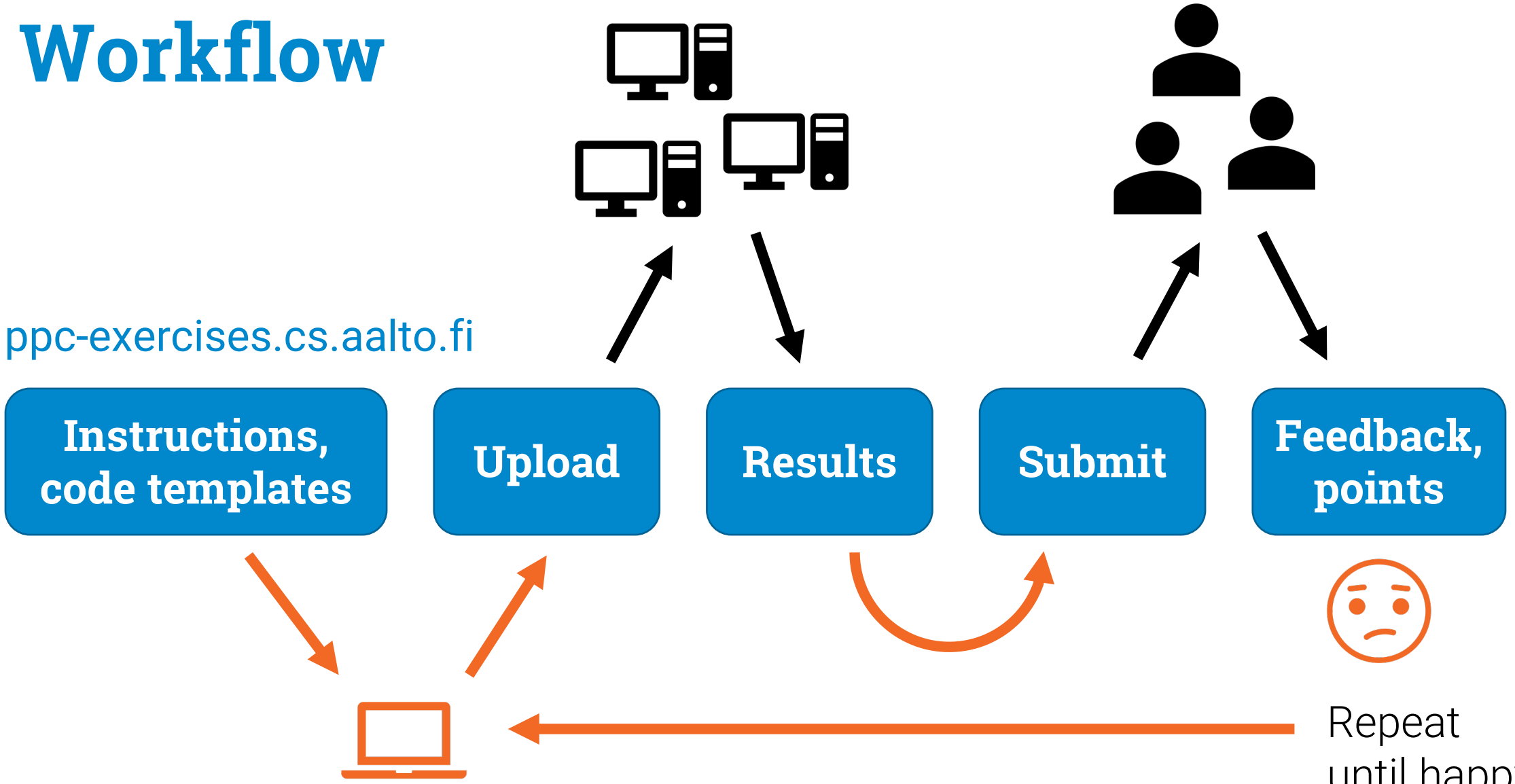
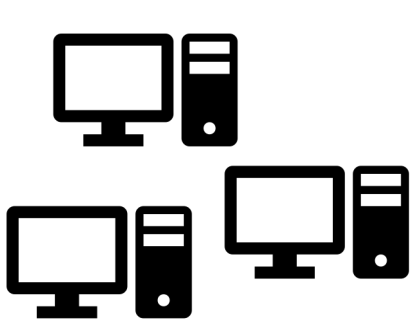
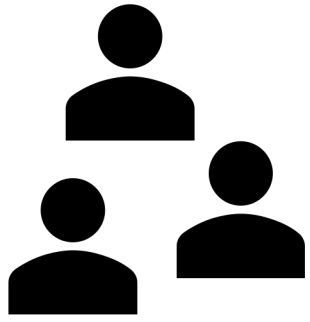

ppc-exercises.cs.aalto.fi
Instructions, code templates
Upload
Results
Submit
Feedback, points
Repeat until happy

Workflow





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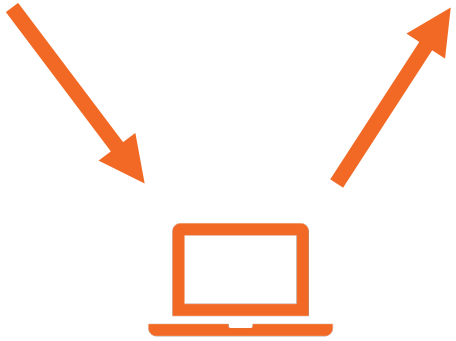
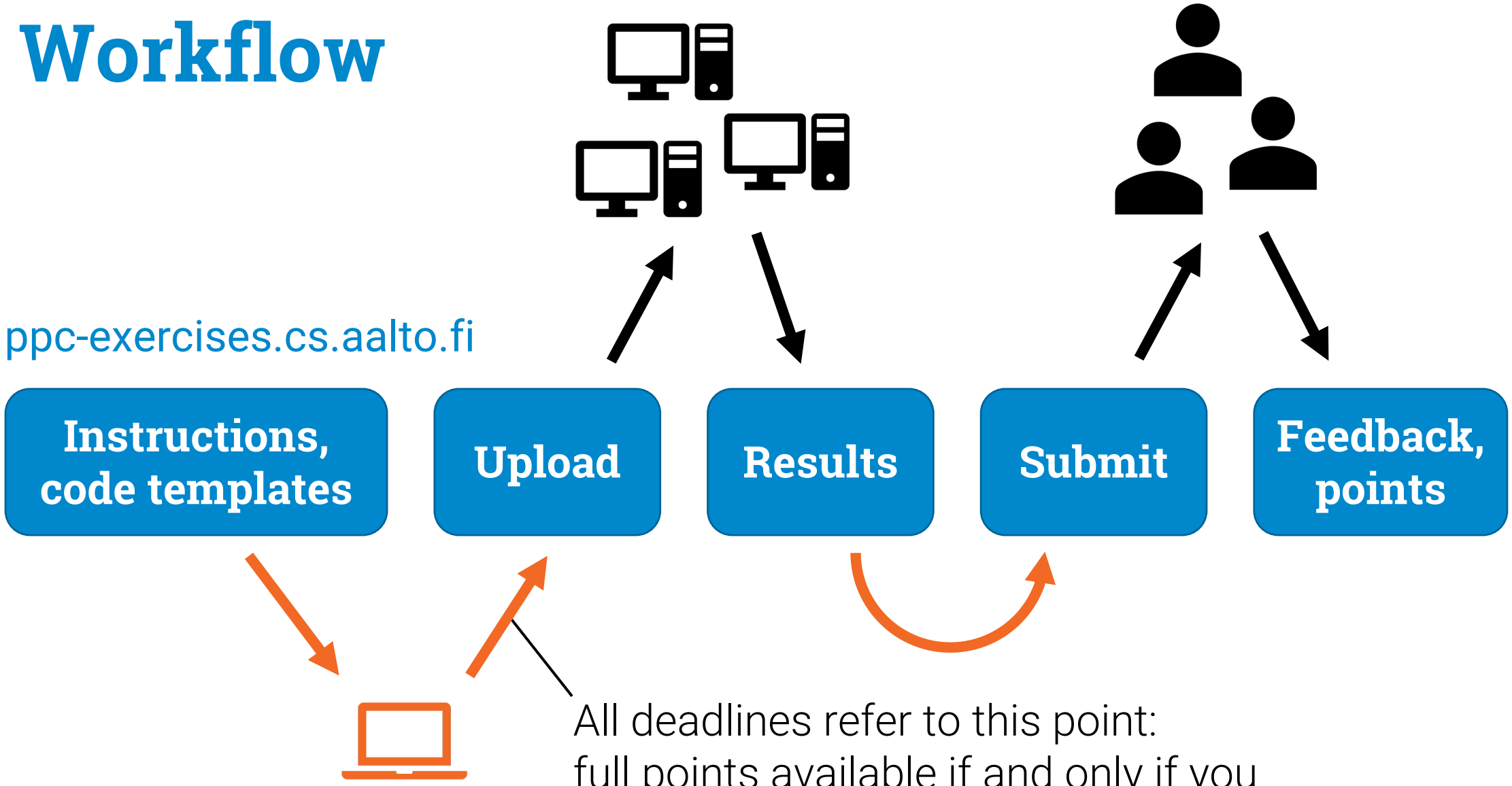
Instructions, code templates → **Upload** → **Results** → **Submit** → **Feedback, points**



Enjoy!

Workflow


ppc-exercises.cs.aalto.fi
Instructions, code templates
Upload
Results
Submit
Feedback, points
All deadlines refer to this point:
full points available if and only if you
uploaded your solution before the deadline

Exercises

- You can solve whichever exercises you want, in any order
  - what matters is the number of points that you get
  - 64 points: **grade 5/5**
  - 38 points: **grade 1/5**
- ***Recommended path***
  - follow it and you will get up to 79 points
- ***Additional exercises***
- ***Contest***
  - extra points if your solution is among the fastest solutions this year!

Prerequisite test

- Gives you a good idea of the minimum level of programming skills you are expected to have
- If you haven’t solved it yet, do it now!
  - task **Pre0** at ppc-exercises.cs.aalto.fi
- 1 point available, deadline: ***Friday***

Resubmissions

- Resubmissions during the course are always safe
- ***Resubmissions are graded exactly like any other submission***, based on when it was uploaded
  - if you upload it **before the task deadline**, you can still get full points
  - if you upload it **after the task deadline**, you can get partial points
  - if you upload **after the course closes**, you will get no points
- For each task, what counts is the submission that gave the highest number of points

Help is available

- One-to-one help is available during the ***exercise sessions***
  - help available both through **Zulip** and **Zoom**
  - you can take part in 0, 1, or 2 exercise sessions per week
- Additional help available in our ***public Zulip streams*** all the time during the course
  - our course staff is very happy to help there
  - feel free to discuss solution ideas there with other students
  - you are free to use a nickname if you prefer that

Collaboration rules

- You are **encouraged to discuss solution ideas** with other students and the course staff, but ***code that you submit must be written by yourself***
- You can **use ideas that you find online**, but you are ***not allowed to copy source code***
- Exception: copying code from our course material is fine

Ask if unsure!

Checklist for this week

- ***Registration*** in Oodi
- Join our ***Zulip*** workspace, follow it
- Create a user account at ***ppc-exercises.cs.aalto.fi***
- ***Upload*** solutions to this week's tasks:
  - **Pre0** by Friday
  - **CP1** and **MF1** by Sunday
- Remember to check the results of automatic grading, fix bugs if needed, and ***submit*** for feedback when ready