

How might we

How might we deepen or refresh the skills of already experienced programmers?

How might we communicate to people that programming is beneficial for their career?

How might we help people to figure out what programming skills they should learn to match their needs?

How might we reduce the barrier to entry for people interested in programming? (DevOps, CI/CD, cloud, etc.)

How might we introduce fundamental concepts to beginners and guide them through the learning process (difference between children and adults)? (abstraction of content)

Easiness of use

coding in browser

have the tutorial/task that could optionally skipped

there should be multiple degrees of how sophisticated the topic is explained (beginner, intermediate, expert). I actually wanted this stuff (bad emoji)

building block based interface

have specific tasks to guide user through the learning process

optional option to split coding environment into multiple windows

have the option to let the user see themselves, in order to figure out how good their understanding of a topic really is

User background evaluation

should be able to divide users of different level

questionnaire with different categories on skills (e.g. decisions, algorithms, data structures, control flow) to see what skills they already have and then we fill out the missing gaps

Learning Resources

in a situation where user has to solve something, they have an opportunity to learn from already solved tasks. They should be able to see the solution and then they can try to solve it themselves. They should be able to see the solution and then they can try to solve it themselves.

Self study and practice guided by class like tutorial

create example solutions

Video tutorials

optional user that can be contacted in case there is a problem

(if) but make sure the literature is also friendly to intermediates

CH could have a recommendation system to recommend more advanced topics (e.g. algorithms, structures, or proper challenging big projects for the user) to give them more ideas on what they could learn/proceed further

CH could have some course/tutorial aimed at getting skill for getting some specific job

Keep user attention

interactive visual representations of the concepts specified

show ranking of difficulty of lesson

also present them challenges to solve in their respective topic, and learn hands on

make it possible to increase difficulty / more advance stuff

may have some dynamic hints/suggestions, and user could choose to see

CH make the interface more interesting/interactive

Career relevance

CH could have some questionnaire to see what skills they need for their career

Have an interaction of skills that people with no experience can understand. They might want to do automation of daily tasks -> whether after basics of scripting

focus questionnaire on what their needs are and show skills needed afterwards

for users who have no clear idea of what they want to do, they should be first wide and then narrow down the scope

compilation of skills required for different jobs or simply a list where they can choose which skills or lessons they would like to learn