

Interview Guide

Section 1: Demographic Questions

1. Age
2. Gender
3. Level of experience:
 - a. Students: first, second, and third year.
 - b. Professional programmers: number of years working in the industry.
4. Can you describe your current level of programming expertise in general?
 - *How long have you been programming?*
 - *With how many programming languages are you familiar?*
 - *Have you received any formal training/tuition?*
 - *Have you any completed any paid/unpaid employment which programming was core to the role?*
 - *How would you consider your programming experience using self-esteem measures? (novice, intermediate or expert).*
5. Can you describe your current level of programming expertise in <language>¹?
 - *How long have you been using the language?*
 - *How would you consider your programming experience using self-esteem measures? (novice, intermediate or expert).*

Section 2: Resources, Memory, and Code Issues Questions:

6. Could you describe to me how you typically approach a programming task (or problem) in <language>? Tell me about the entire process from beginning to end and the engaged resources.
The answer should state clearly the resources used by the programmer.
7. What are the websites you were using while coding?
This might include:
 - *What the purpose of using such websites?*
8. Why did you choose those? What are the features you like more? What special in these resources? Are there any problems when using these websites?
(These questions help identify the most interested features for the websites, which make programmer visited)
9. Describe your experience while using the resources? Are you satisfied with the websites?
(This question helps to know programmer's experience while using the website. Also, it helps to know if the programmer was satisfying with the website.)

¹ The preferred language

10. Have you ever used Internet Q&A websites (like Stack Overflow) to help resolve your programming problems in <language>? Can you describe your approach?

This might include:

- *How frequently would you say you use this tool?*
- *Which specific Q&A website(s) would you use?*
- *How do you find relevant content?*
- *Does your use of Q&A websites usually help resolve the problem? On average how quickly?*

11. After solving the programming problem using websites, do you find yourself more experienced with the problem? Can you solve a similar problem without using any resources?

(These questions help explain the relationship between searching for programming answers using the websites and memory deficiency.)

This might include:

- *Do you struggle with the websites when programming?*
- *Do you search again and again for the same code? If yes, how many time?*
- *How many times did you search for trivial programming information? (such as easy things that you should memories it).*
- *How many times did you search for programming information to make sure it correct?*
- *Does your memory not capable to store or retrieve certain programming code (such as basic programming)?*

12. Suppose you encounter a problem when trying to complete a programming task. For example: an error that you cannot immediately fix by yourself, a piece of functionality for which you are unsure of the syntax, or a subtask that you cannot translate into the relevant algorithm. Could you describe for me the techniques you would usually use trying to resolve such problems when programming in <language>?

13. Do you focus more on your memory or the websites?

14. Do you have any concerns about the quality of code you find on websites?

This might include:

- *Do you face any problem when using or adopting code from websites?*
- *This might include facing issues like code-security related issues in form of security breach, bugs, and code-redundancy issues?*