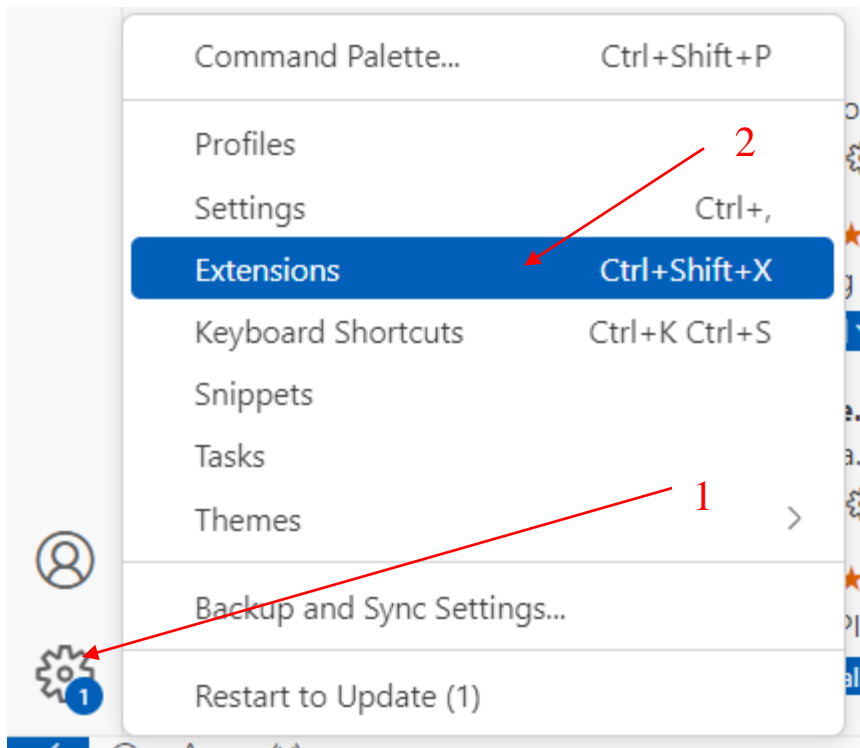




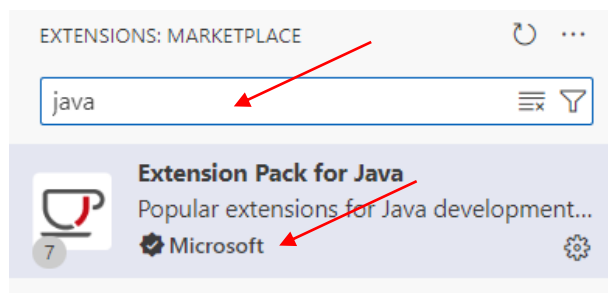
Lab 2

All of labs related to coding are implemented on Visual Studio Code (VS Code) due to its lightweighness and fast running. If you are using other softwares, please consider switching to VSCode.

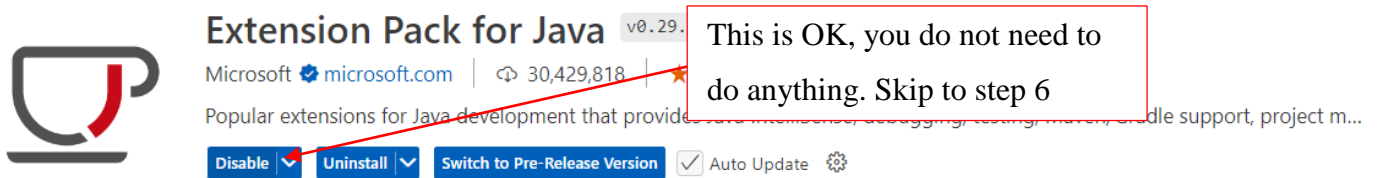
1. Open VS Code
2. Go to Settings → Extensions



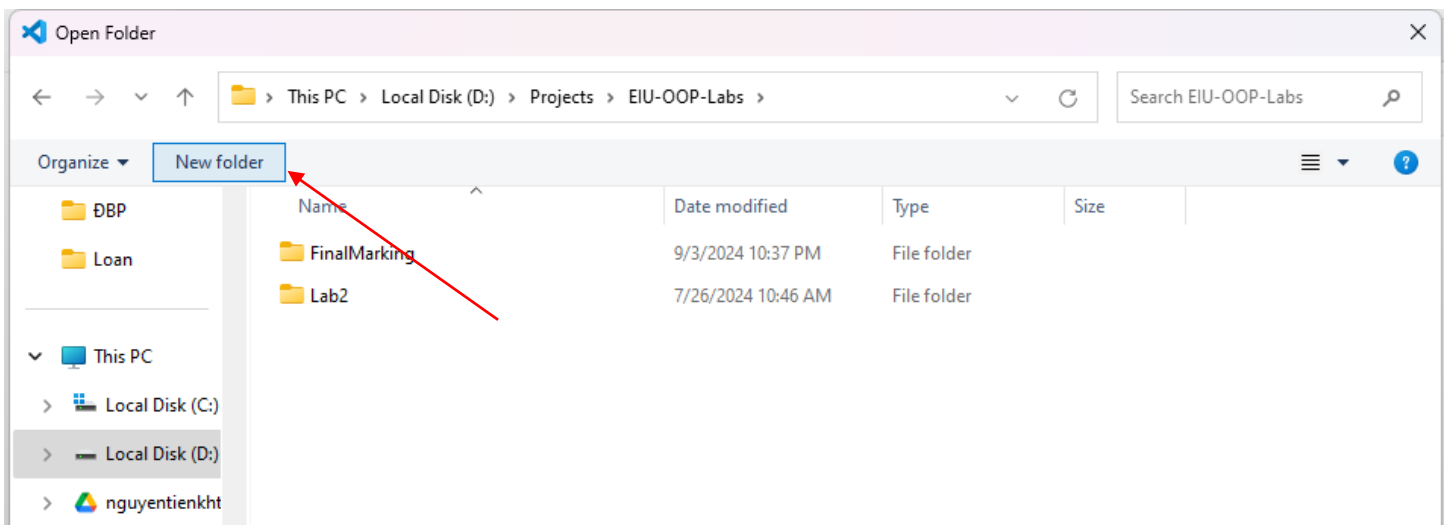
3. Search for Extention Pack for Java and select result **from Microsoft**



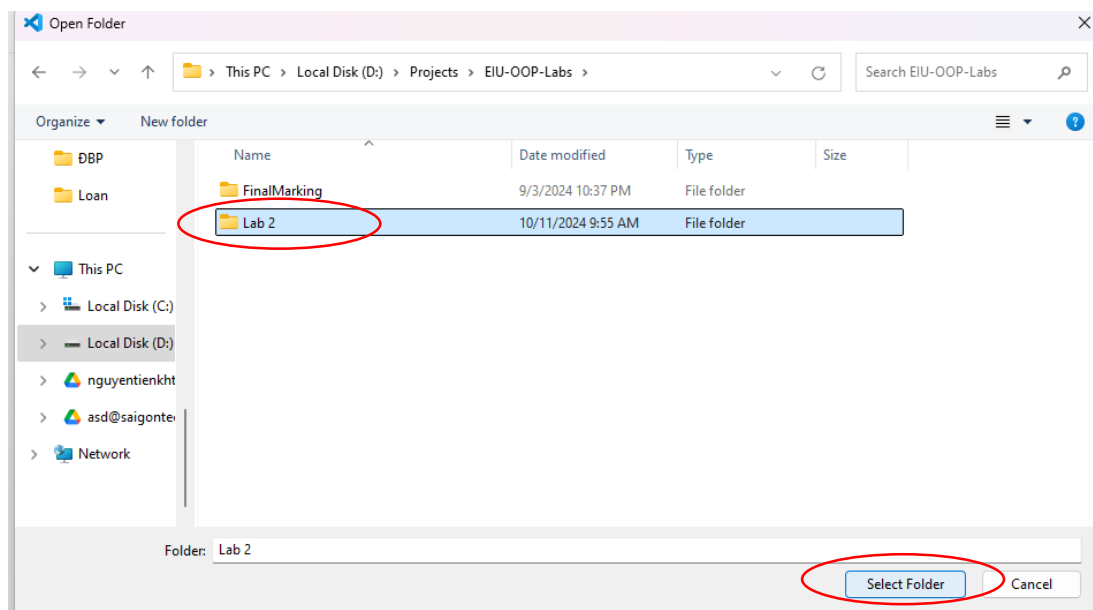
4. Check if you see “Disable”, your machine has been equipped with Java extension, skip to step 6.



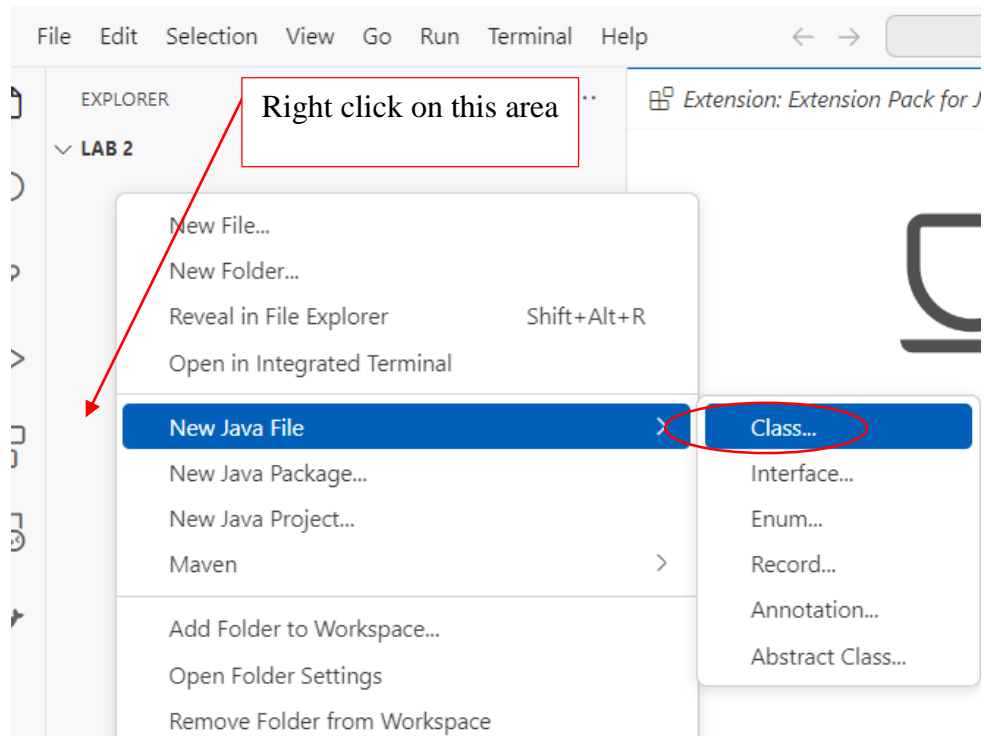
5. If you see “Install” button, please press Install button. Wait till the installation finishes.
6. Go to File → Open folder
7. Go to your favorite location and press “New folder” for creating a folder for the labs



8. Click on the desired folder, and choose Select Folder

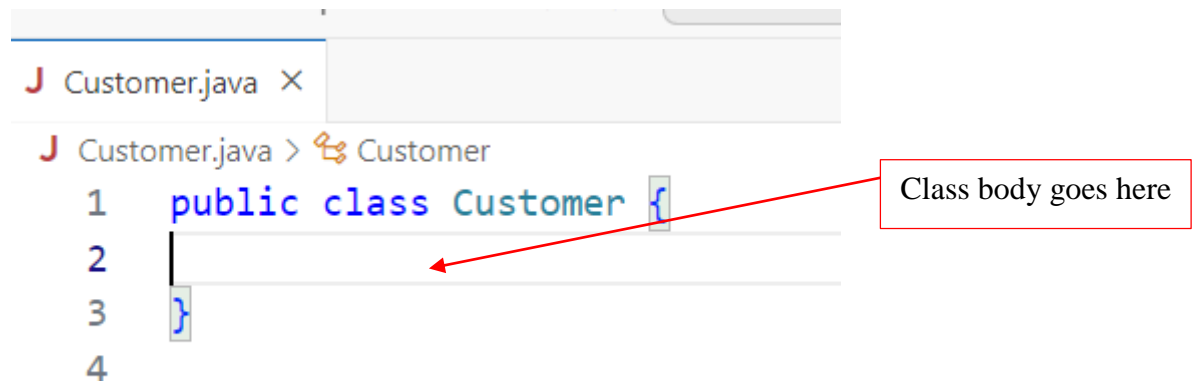


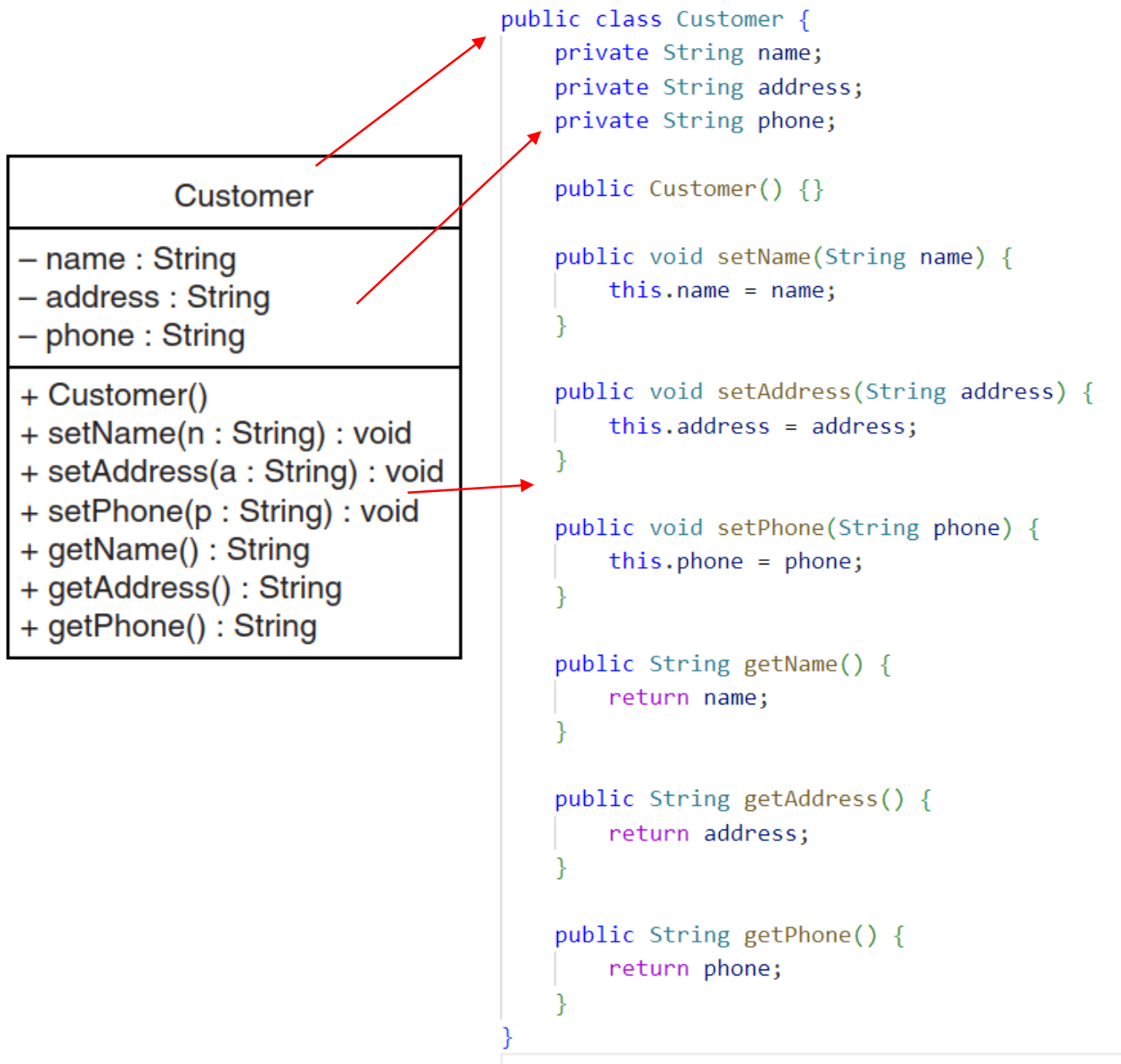
9. Right click on right side of the VS Code window, select New Java File → Class



10. Name your class using Java naming conventions

11. Write your class in the editor window





12. Repeat step 9 for other classes **including the demonstration class (containing the main method)**

13. Repeat the steps for write codes for classes in the following problems:

Problem 1:

Bella's Pet Grooming Shop specializes in grooming dogs and cats. When a customer brings a pet to the shop, the groomer gets the customer's name, address, and phone number. The groomer then records the pet's breed, age, and weight, and provides the customer with a service estimate. The service estimate includes the cost of grooming services, additional care charges, and the total cost including sales tax.

Problem 2:

Sweet Delights Bakery takes custom cake orders for events such as weddings and birthdays. When a customer places an order, the baker collects the customer's name, address, and phone number. The baker then records the type of cake, the number of tiers, and the event date, and provides the customer with a price quote. The price quote includes the cost of ingredients, labor charges, and delivery fee, plus the total amount including sales tax.

Problem 3:

Speedy Car Rentals rents out cars to customers for personal and business use. When a customer rents a car, the rental agent records the customer's name, address, and driver's license number. The agent then notes the make and model of the car being rented, the rental period, and the mileage limit, and provides the customer with a rental agreement. The rental agreement includes the base rental fee, any applicable mileage fees, and the total rental cost including taxes.

Problem 4:

Shutterbug Photography Studio offers photoshoots for families and events. When a customer books a session, the photographer collects the customer's name, address, and phone number. The photographer also records the type of session (e.g., family, wedding, portrait), the session duration, and the date. A booking confirmation is provided, which includes the base session fee, any additional charges for editing, and the total price including sales tax.

Problem 5:

EIU Library offers printed books for borrowing. When a user wants to borrow a book, they first check if it is available. If available, the user provides the ISBN, title, and the number of days they want to borrow the book to the librarian. The librarian then verifies the user's ID, name, and email address, and checks the list of books the user is currently holding. If the user has more than one overdue book, they cannot borrow any more books.

Submit: Must include:

- a pdf file containing your information (student id, name), and images of the class diagrams, codes, answers
- and all source code files (if any)

in a zipped (.zip or *.rar) file to moodle