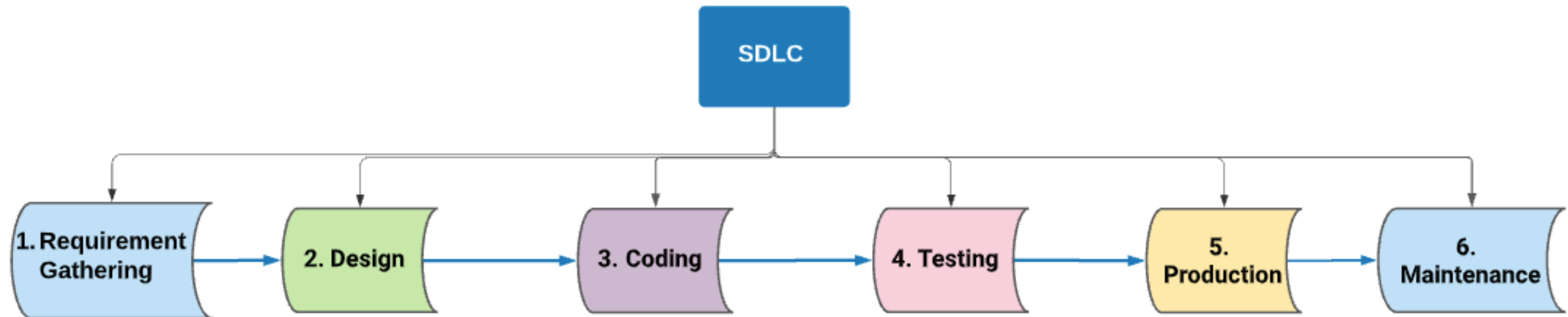


Software Development Life Cycle (SDLC)

Interview question from this topic:

- What is **SDLC**?



Step 1: Requirement Gathering & Analysis

Goal: 1. Business team **collects** the detail **requirements**

- Requirements may from **different resources**

2. **Analyze** the requirements & **Plan** how to develop the app

- The team analyzes economic, law regulation, technology, and schedule; this is called a feasibility study.

3. **Document** all the **functional** and **non-functional** requirements

There are several types of documents are prepared :

- Software Requirement Specification (**SRS**)

[Click here to view a sample SRS doc](#)

- Market requirement (MR), Functional requirement(FR), Non-functional requirements(NFR), etc

Who: Business team members - Project managers, Product Owner, Business Analyst
the Client and stakeholders

Output: SRS document

Step 2: Designing

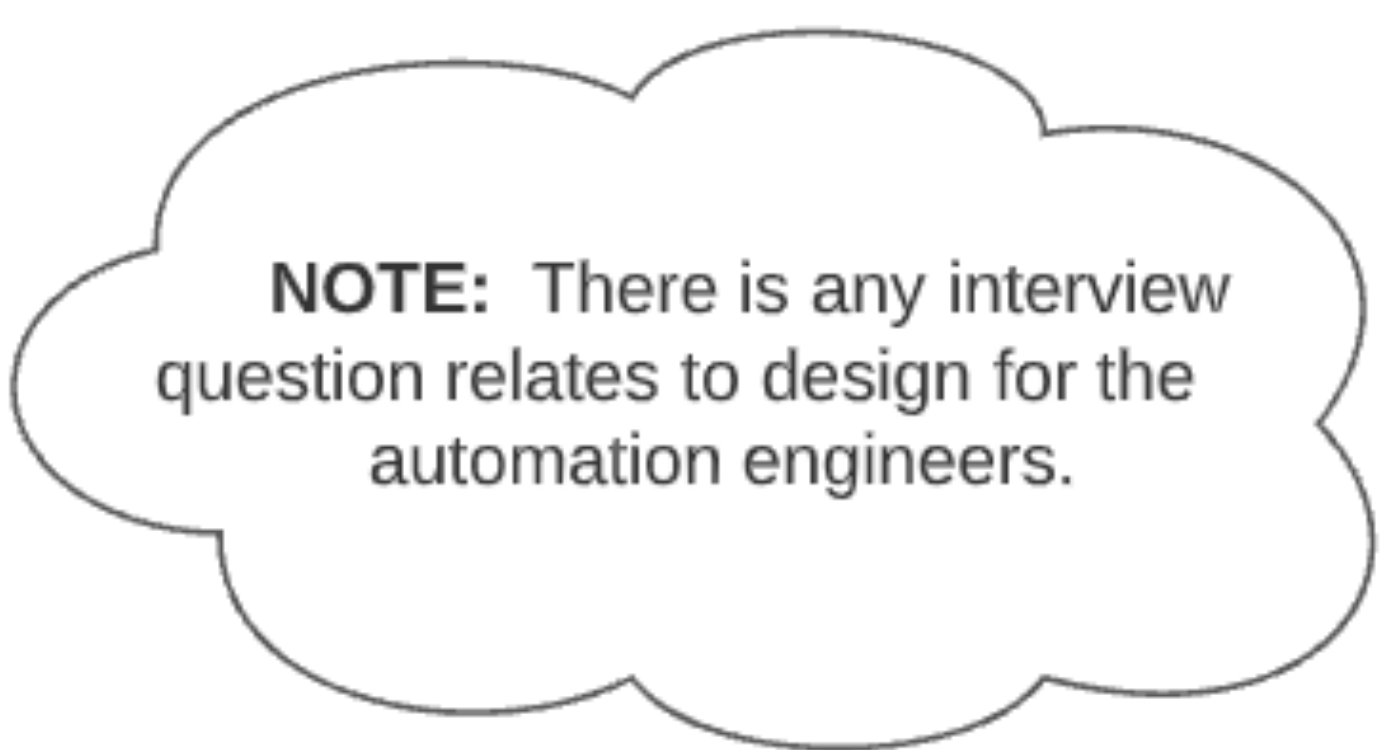
Goal:

Architectures and designers creates Design Documents
Design the application' UI, Databse, API, etc.

- [Click here for a sample software Design specification \(SDS\)](#)
- [SDS sample 2](#)

Who: Business team (PM, PO, BA), The client/stakeholders, Architechtures/designers, develoeprs(may be)

Output: SDS doc & Prototype of the app



NOTE: There is any interview question relates to design for the automation engineers.

Click here SDS sample 1: <https://drive.google.com/file/d/1xpg6ajPQb1IEZW2ek4aQnlz5eAIM6BuU/view?usp=sharing>

Click here for SDS sample 2: https://docs.google.com/document/d/1zydDLUWPSX8JTDdJKOmuG_1oS3JFKTFp/edit?usp=sharing&ouid=105312414068310747400&rtpof=true&sd=true

Step 3 : Coding / developing / implementing

Goal:

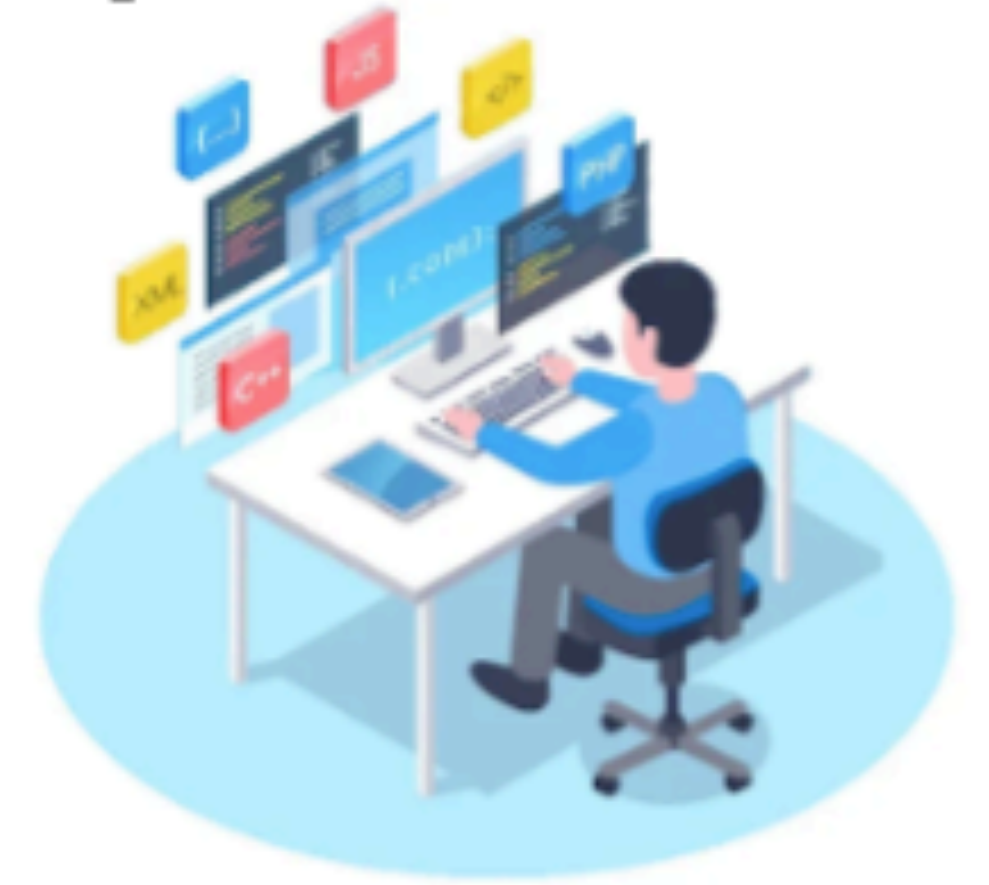
Developers build the software by writing code using the chosen programming language

- Codes are divided into small units
- Developers review each others' code
- Developer lead approves the codes
- This is the longest phase of the SDLC process

Who:

Developers (FrontEnd dev, BackEnd Dev, Full-stack Dev)

Output: *Initial version of the project/software*



Step 4 : Testing

Goal:

-> **Perform software testings** based on functional and non-functional requirements

Analyze the requirement and **plan** how to test

Write test case **documents** and prepare test data

Identify bugs & write bug reprots

Test reports are documented

Who:

QA engineers / SDET , performance testers, security engineers, the client, end-users



Output: *Bug free software / ready to be released app*

Step 5 : Deployment / Production / Release

Goal:

Moving the developed **software to the production** environment so that the users can access to the software.

- Developers, testers, business team members are all together release the app
- Codes / new features are deployed to production
- The software will be practical used by end users



Who:

Everyone who is involved to develop the app. Business team, Development team, DevOps team, The client sometimes.

Output: *End users use the app*

Step 6 : Maintenance

Goal:

- **Bug fix** : There maybe some bugs occurs in production that missed in testing step
- **Project support** with the help of developers, Dev-ops engineers and business team
- **Update** and improve the software by **adding new features**

Who:

- **Everyone who involved in developing the project**
- **or the company will form a "support team" with any developoeprs and testers**

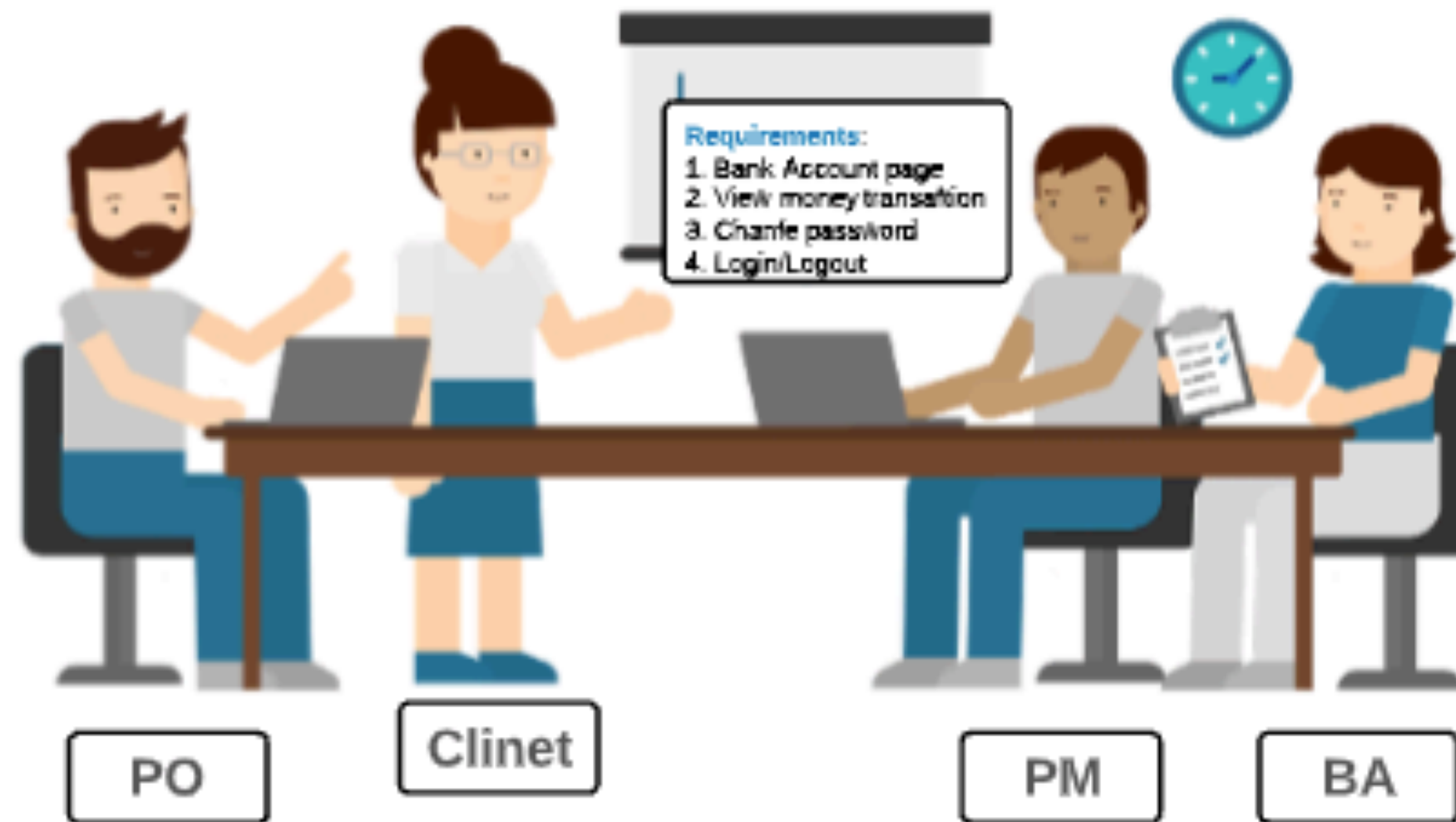
Output:

- **provide support**
- **may start a new SDLC to add new features to the app**

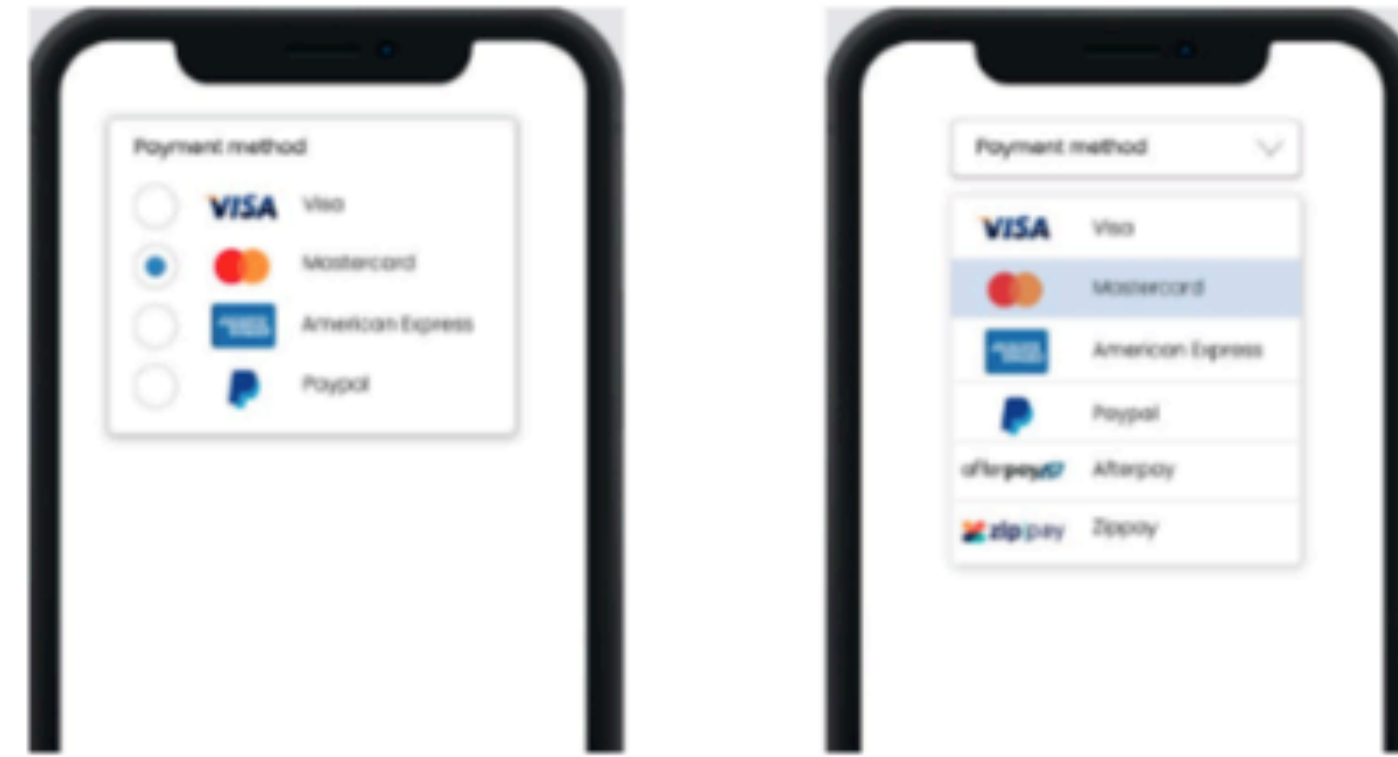
Adding new features means:

New Requirements gathered
Design
Code
Test
Deploy





1. **The client provides** the requirements of the app to **PO**
2. **Business Team -> Prepare SRS** and many documents



Which one is the best design?

1. **Designers** create **SDS** documents
2. **Designers** prepare the **prototype/blueprint** of the software



http://dev.Bank.com

Bank Account Application Form

Personal Information

Title* (Select Title or First Name) Middle Name (If Applicable) (Last Name) Last Name*

Phone Number* (Example: 2020000000) Email* Date of Birth*

What type of account are you applying for?

Deposit Amount \$ (Enter Amount in the box)

Address History

Are you currently a UK resident?

☐ Yes ☐ No

Current Address

Address Line 1* Address Line 2* Town/City* County* Post Code*

Have you lived at any other address within the last 5 years?

☐ Yes ☐ No

December 2021

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Clear

Today

Developers write code to **build the app** according to the SRS and SDS

SOFTWARE TESTING



http://qa.Bank.com

Bank Account Application Form

Personal Information

Title* (Select Title) First Name* Last Name* Middle Name (If Applicable) (Select Name)

Phone Number* (Example: 555-555-5555) Email* Your email address Date of Birth* (mm/dd/yyyy)

What type of account are you applying for? (Select Account)

Deposit Amount \$ Enter Amount (in the us) \$00

Address History

Are you currently a US resident?

☐ Yes ☐ No

Current Address

Address line 1* Address line 2 Town/City* County Post Code*

Have you lived at any other address within the last 5 years?

☐ Yes ☐ No

December 2021

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12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1
2	3	4	5	6	7	8

1. Functional testers test the functionalities of the app on 3 layers (UI, DB, API)
2. Performance testers test the non-functionalities of the app
3. The client test if the app is developed and bug free as she/he expected



<https://Bank.com>

Bank Account Application Form

Personal Information

Title* First Name* Middle Names (If Applicable) Last Name*

Phone Number* Email* Date of Birth*

What type of account are you applying for?

Deposit Amount \$

Address History

Are you currently a UK resident?

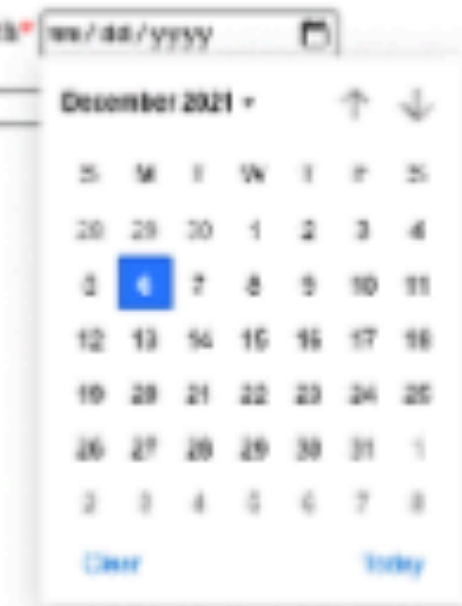
☐ Yes ☐ No

Current Address

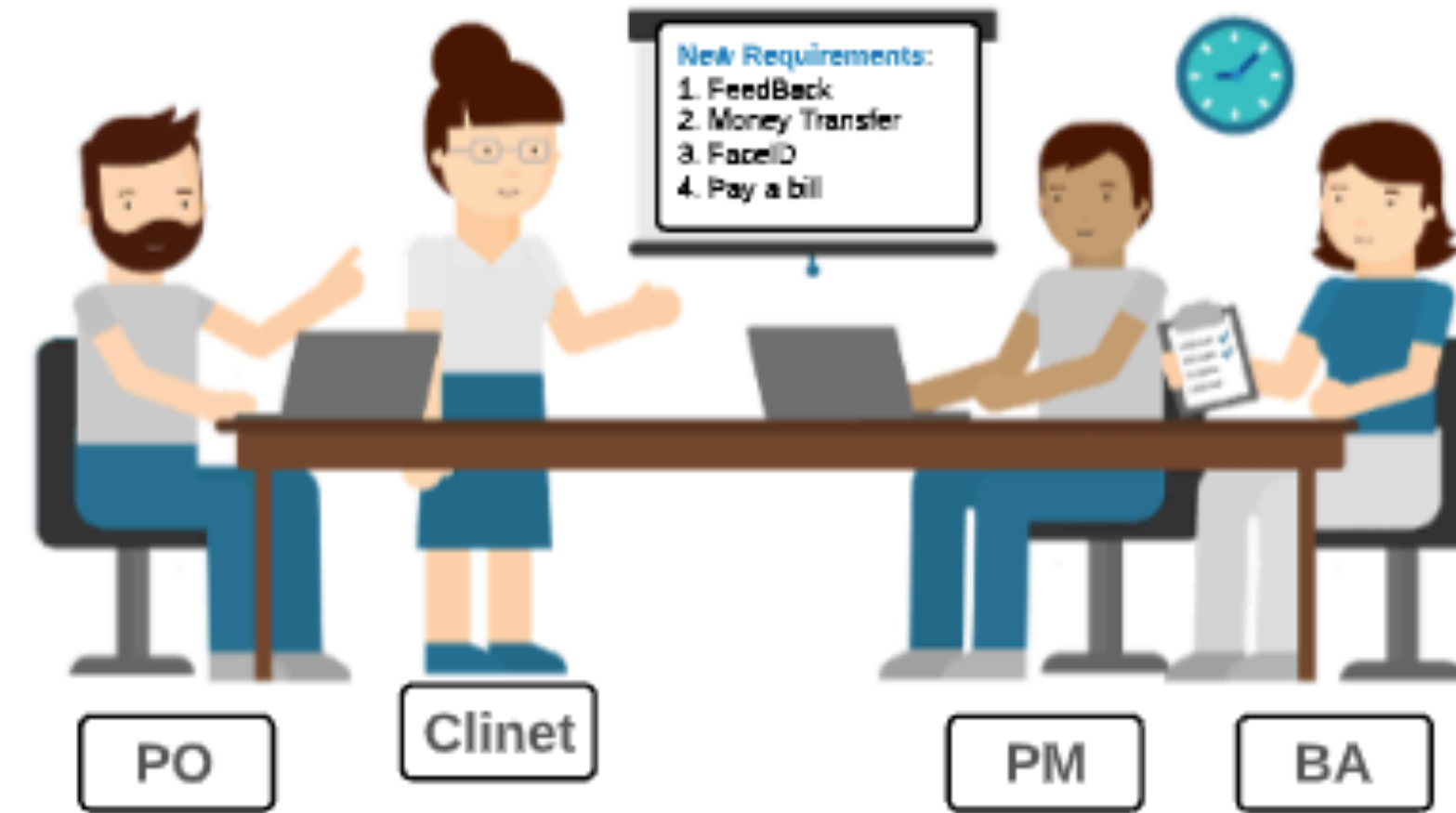
Address line 1* Address line 2 Town/City* County Post Code*

Have you lived at any other address within the last 5 years?

☐ Yes ☐ No



End users / target audience use the software



1. **Fix any bugs** that found in the real world
2. *Porvide support*
3. **Get feedback** from the market
4. Ask from the client " Do you need to add more features?" - Yes ? SDLC starts again