1. Yêu cầu đã biết trc (có phần mềm bằng excel) + ít thay đổi, có IT support => Waterfall

I will use Waterfall Software Development Methodology because:

* Requirements are clear and less likely to change
* Small project, few developers
* Short period of time

1. Functional: (những yêu cầu phải thông qua giao diện)

* View their shift by month, by week, by day.
* Request change their shift in case of they have an emergency business.
* View list of services and customers by shift.
* View their income, commision by month, by year.

Non-functional:

* The Web application should compatible with a wide range of browsers such as Sarafi, Firefox, Chrome, CocCoc,…
* The language is used for Web application including Vietnamese, French, English.
* credit-card processing to deposit…
* support 1000 users login at the same time

1. As an employee I want to view my shift by month so that I can arrage my schedule

As an employee I want to view my customers and services in the next shift so that I can prepare tool before

As a customer I want to view services price so that I can choose what are suitable for me

1. Check file

3 tầng: user activivties, user tasks, features

1. Functional test: test các kịch bản người dùng, black box test

Think as a customer, create customer scenarios and try them

Developing test cases based on typical user behavior

Non-functional: test nhận tin sms, test trên các trình duyệt, test thanh toán credit card

1. I think security is most important because …

Reliability because when I register a course, I want my schedule instantly update so that …

**Advantages of Waterfall Model:**

* It is one the easiest model to manage. Because of its nature, each phase has specific deliverables and a review process.
* It works well for smaller size projects where requirements are easily understandable.
* Faster delivery of the project
* Process and results are well documented.
* Easily adaptable method for shifting teams
* This project management methodology is beneficial to manage dependencies.

**Advantages of the Agile Model:**

* It is focused client process. So, it makes sure that the client is continuously involved during every stage.
* Agile teams are extremely motivated and self-organized so it likely to provide a better result from the development projects.
* Agile software development method assures that quality of the development is maintained
* The process is completely based on the incremental progress. Therefore, the client and team know exactly what is complete and what is not. This reduces risk in the development process.

**Limitations of Waterfall Model:**

* It is not an ideal model for a large size project
* If the requirement is not clear at the beginning, it is a less effective method.
* Very difficult to move back to makes changes in the previous phases.
* The testing process starts once development is over. Hence, it has high chances of bugs to be found later in development where they are expensive to fix.

**Limitations of Agile Model**

* It is not useful method for small development projects.
* It requires an expert to take important decisions in the meeting.
* Cost of implementing an agile method is little more compared to other development methodologies.
* The project can easily go off track if the project manager is not clear what outcome he/she wants.