1, to build a house first we will need to know what are the requirements like how many rooms , how many square foot is the house then we will be analysis based on the requirements then we choose what design based on the requirements and analysis then we start implementing the base, stands, plumbing and electric… etc. then we build the house. Then we test the lights plugs outlets (this is part of testing)

—>advantages

-Manageable for a manager/contractor

-before the next step/phase of development each phase must be completed

—> disadvantage

- any complications can be fixed during the phase

- if the plumber put damaged pipe, he had to dig a lot of floors to fix it.

2 RUP way of building a house is like you will have to define the time you need to finish the house. Identifying the risks help with the safety and you can change the requirement by bringing use cases like what if you add another window to the room and bring different design to the living room stairs. This RUP allow you deal with any change with the requirements like after we finish the house if we want to add a bath to the rest room this had allowed us to build one in there.

—>Advantage

-allow you deal with any change comes from the customer change from the project it self

—>disadvantage

-Time consuming

3, here the customer/owner of the house the engineers and contractors are involved since the start of the project till the end of the project. When the customer choose the design of the house the contractor will decide from his analysis what’s needed to start the house then the will start implementing from the scratch then the engineer and contractor are going to see on the development site what is needed if the customer wants some change and they will apply it because this way of approaching the project will allow you check everything before it’s done if there’s going to be some problem you can easily fix it when it’s done.

Disadvantage of this

—>project might be delayed if the customer is not involved

—> this only can be successful with experienced team only

4,DevOp is different because it’s the collaboration of teams between the development and operations but other methodology focuses on mid project change while DevOp focuses end to end software development that embraces constant development and testing

ADVANTAGE

-better collaboration and fast turnaround

Disadvantage

-there maybe less expensive way to achieve the same results.

5,

-Waterfall is a linear project progression, so it's best suited for projects with a defined end goal

-Use Component-Based Architectures: Emphasizes development that focuses on software components which are reusable through this project and, most importantly, within future projects.

-Scrum methodology works well for smaller teams tackling projects with changing deliverables, unknown solutions, and frequent interaction with clients or end-users

-DevOp best suited for creating a website, creating a dashboard for an application

6, documentation is the information that describes the product to the people who develop, deploy and use it

-Include A README file that contains

A brief description of the project,

Installation instructions and short example/tutorial. By Write an API documentation

What a function do what the function's parameters or arguments are what a function returns. Include licensing information. List all the version of the files along with the major edits you did in each version.

* since everyone in the team got access to the roadmap to the software documentation it’s easier to find out what and where the problems are from the documentation, and it becomes easily to fix things.