***(Software Development Life Cycle) SDLC***  
This describes all the steps that are involved in A project development from starting to ending in the software life cycle.

a) requirement gathering of the software

b) requirements analysis of the software

c) design of the software

d) development of the software

e) testing of the software

f) Deployment of the software

g) Maintenance (M & O) -> Prod Support of the software

***Waterfall Model***

* waterfall was the first process to be introduced
* it is very simple to understand and use
* Each phase must be completed before the next phase
* eaterfall model is a sequential design process in which progress is seen as flowing steadily downwards.

***Advantages***

1) departmentalization and control

2) easily Under stable

3) each phase has specific deliverable & review process

4) phases will be completed one at a time (There is no overlap)

5) this works for small projects when requirements are well understood

***Dis-Advantages***  
1) it is difficult to estimate time and cost for each phase of the development process

2) changing requirements will be completely re-work in project

4) not a good model for complex and big projects

5) not suitable for the projects where requirements are not fixed

6) the project will be delivered at the end

***Agile Methodology***  
  
AGILE methodology is a practice that promotes continuous restatement of development and testing throughout the software development Lifecyle.

Advantages  
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1) it is best suitable for complex and large project

2) Clients no need to wait long time to see the project

3) Requirements are dynamic

Dis-Advantages  
---------------  
3) Cost of the project is not fixed

Agile Terminology  
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Product Owner  
scrum master  
backlog grooming  
Backlogs  
Story & Story Points  
sprint Planning  
sprint  
Scrum  
Mid-inspection Review  
Retro-spectate

***Product Owner***  
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1) product owner is the person who is responsible to deliver product to client

2) product owner is one of our company employees

3) product owner will monitor what team members are doing and how far along the are in the project

4) product owner will provide suggestions to team members during the project work

5)product owner will update clients feedback about our work to team

***Scrum Master***  
1) scrum master is one employee in our company

2)scrum master will manage agile team members

3) scrum master will conduct meetings with Team Members

4) scrum master will Collect daily status updates from Team Members

5) scrum master may not be a technical person

6) scrum master will get requirements from Product Owner

7) scrum master will address issues facing by team members

***Agile Team members***  
1)Agile Teams are small in nature

2) as per industry Agile team size should be 7 or less

3) Agile Teams contains both developers & testers

***Tech Lead***  
1) in Agile Team one team member will be Tech Lead

2) Tech Lead is the person who is techniconference cally strong and knows entire project

3) He/She is responsible to help team members whenever they face any technical issue4

4) He/She is responsible to knowledge Transfer or aka(Turnover) for new joiners in the project

***backlog Grooming***  
  
1)it is one meeting which will be conducting by scrum master

2) All Agile Team members, scrum master & product owner will be part of this meeting

3) in this meeting we will identify our future work (tasks)

4) we will create user stories for requirements in jira

5)jira is a project Management tool.

6)All team members will create stories in Jira in backlog grooming meeting

***stories for SNHU Travel project***  
1) Create Git Repository & project folder structure

2) Design Home Page with Header & footer

3) Login functionality

4) Registration functionality

5) forgot Password

6) Dashboard

7) Unit Testing

8) Exception Handling

9) Code Review

10) Client-side validations

11) Jenkins Pipeline creation

12) Deploy project to DEV

13) Deploy project to QA

14) Sonar Fixes

15) Test login screen

16) Test registration screen

17) Test forgot password screen

18) Test UI

19) Logging should be implemented

20) every team member will have access for jira

21)All members will involve in stories creation in jira

22)in backlog Grooming meeting we will create jira stories in backlog bucket.

23)backlog means pending works we need to complete in future

***JIRA:***  
1)it is an Atlassian company product

2) it is used to manage our project work

-3)we can use this as a bug reporting tool

4) jira is a web application directly we can access from web

5) Create Account in jira and Login into jira software

6) Create **SNHU Travel project** in jira

   7)Classic project

   8) Next Gen project

9) after project creation completed, we can create stories in backlog.

10) backlog means pending works

11) for every task we will create story in backlog bucket

12) for every Story one jira id will be generated

13) for every Story one jira id will be generated

14) when we create Story, we should write description

15)for every story we need to assign story points

       1 point ---> 1-day story  
       2 points ---> 2-days story  
       3 points ---> 3-days story

***Sprint Planning and Sprint***  
1)sprint means: Time a after which the product is in a stable, releasable form

2)every sprint will have duration: 4 weeks

3)every sprint will have Target/Goal: example 196 Story points or more

4)sprint planning: is an event in scrum that kicks off the sprint

5)  in sprint planning is to determine the team's capacity for the upcoming sprint and compare it with the total story points proposed.

6) as part of sprint planning, we will identify which stories we need to deliver in upcoming sprint.

7) in this sprint planning session after deciding stories to deliver team will walk through all stories and will verify title, description and story points and will check any corrections are required.

8) if corrections are required for story team members will do that

9) in sprint planning scrum master will create sprint and will choose start date, end date and goal of the sprint.

10) Once sprint planning is completed sprint will be created by scrum master

11)after sprint creation team members should assign work to them self (assign story to your name and start working on that)

12)choose one story which is in 'To Do' status and assign to your name and change status of Story from 'To Do' to 'in Progress'.

13) in the sprint, a scrum meeting will be available everyday during business hours

14) scrum master will hold a scrum meeting

15)scrum meeting duration will be 15 mins of time unless there is a problem in that case it will go until the issue is resolved

16) in scrum meeting, scrum master will collect team members work status details like below

   yesterday what did you get done? **SNHU Travel**- story 1 Completed

today what you are going to get done? **SNHU Travel**- story 2 in Progress

 Are there any blocker issues? Yes or No. IF yes say what you are having problems or condones

you have with the project. And if no just move to the next person

17) these details will be collected from all team members in scrum Call by scrum master and given to the product owner

18) if you are not able to join scrum meeting due to overlapping meetings, we have to send our status details to scrum master in email.

***Mid-iteration review***:  
  
1) Mid iteration Review meeting will be conducted by scrum master

2) Once half of the sprint duration completed this meeting will happen

3) The main agenda of this meeting to check our progress on sprint

4) in this meeting scrum master will go through all the pending stories available in sprint in jira

5) scrum master will discuss about improvement areas

***Retrospective***  
  
1)this meeting will be conducted by scrum master

2) once sprint is completed, scrum master will schedule Retro meeting

3) in this meeting we will discuss about improvement areas, learnings and achievements of previous sprint (Wins & Worries).

4) before Going to star retro scrum master will share Idea board to share our ideas

5) scrum master will open and go thru Idea board

6)if we are not able to complete all stories then What are the stores in progress or to do status will be moved to Next sprint.

7)once retro is completed, then sprint planning will happen

***Sprint Planning***

1)in sprint Planning scrum master will identify which stories we need to complete in coming sprint.

2)all stories will be identified from backlog and sprint will be created

3)every Story will be revisited by team members and if any changes are required to Title, description, story points then we will do those changes if any

4)sprint duration will be available on jira

5)sprint goal will be available (Total story points we need to deliver) on jira

6)once sprint planning is completed, team members will assign stories to them self

7)0nce sprint started every day scrum will be conducted by scrum master

8)in scrum conference call every team member should provide work status

What I got done yesterday

What I plan to work on today

Are there any issues yes or no? if so tell him or her what the problem is or what is your concerns and if not on the conference call email what the problem is to the scrum master

if we are not able to join scrum conference call, then we should send email to scrum master with a update.

* reference

my mother Mary proved information via her current job on agile and software development life cycle (SDLC)