Activity of UML Diagrams

Question#1:

Explain how an agile software process differs from a waterfall software process and give an advantage and a disadvantage of each.

Case-Study

Pair programming is an agile software development technique in which two programmers work together at one workstation. One types in code while the other reviews each line of code as it is typed in. The person typing is called the driver. The person reviewing the code is called the observer. The two programmers switch roles frequently (possibly every 30 minutes or less).

Suppose that you are asked to build a system that allows Remote Pair Programming. That is, the system should allow the driver and the observer to be in remote locations, but both can view a single desktop in real-time. The driver should be able to edit code and the observer should be able to "point" to objects on the driver's desktop. In addition, there should be a video chat facility to allow the programmers to communicate. The system should allow the programmers to easily swap roles and record rationale in the form of video chats. In addition, the driver should be able to issue the system to backup old work.

Read the above case study and answer the following questions:

1. Draw a use case diagram to show all the functionality of the system.
2. Propose a set of classes that could be used in your system and present them in a class diagram.
3. Write a description of any of 3 Use-cases you identify in the above scenario.