Waterfall model and spiral model essay

Software Development includes all the activities starting with an idea for the software to the maintenance of the software. This Software Development includes all the phases from planning to acceptance. There are several models in Software Development Life Cycle, but understanding the difference between these models will make me easier to decide, which is the right model to be used for developing the project. There are three differences between Waterfall model and Spiral model. The first difference is Involvement of User in all the phases of Software Development Life Cycle. In Waterfall model there will be no involvement of customer, only at the beginning of the project the customer is involved. After the whole project is completed the project is given to the customer, until then there will be no involvement of the customer.

This is the main drawback of Waterfall model. But in Spiral model the customer can interact at any phase and the customer can the requirements and has complete involvement. The customers can change his requirements any time. They are made aware of all that is happening in the development. If the customer feels to change the design or code, it is possible to change in spiral model. The drawback of Water fall model is a good advantage for Spiral model. For Example: If a customer wants a software for his super market, Spiral model is best suitable why because almost every day a new product is launched then will be very much easy to add the new products and update the software. This helps in ensuring that software is according to the requirements of the customer. The second difference is Availability of reusable components. In Waterfall model there will be step by step procedure of development of the project from one phase to other phase.

There will be roll back that means after completion of one phase there will be no roll back to the previous phase. For example, In Car manufacturing company there will be step by step procedure and according to those stages the car is manufactured. After the car is manufactured if I want to change the design of the car then there will be no roll back to the previous stage. The entire process should be started from the beginning. There will be no availability to use the reused components once again the whole process should be started from beginning. But in the case of Spiral model, there are different iterations in each phase to make the required changes. In spiral model the components can be reused and they are iterated.

These iterations are useful to design the required car. This advantage of Spiral model helps in saving lot of time and money. Mainly due to the iterations in Spiral model the components are reused. The third difference is Risk Analysis. In Waterfall model the risk can be managed only in the beginning stages, but later on if there are any errors then it is difficult to set those errors. The whole process must be repeated from beginning to fix the errors. This will be risk to the developer to risk those errors and make the system work accordingly. In waterfall model there is no risk management, only in the beginning stages during the design phase changes can be done, but after the development phase is started to fix the errors the whole process need to be repeated. But in the case of Spiral model every prototype is tried and tested. Hence the chances of getting the errors at later stages are very rare. Here in this every phase is tested and if there are any errors they can be easily rectified and changes can be made easily.

In Spiral model the risk analysis is better compared to Waterfall model. In conclusion, the three main differences which are the Involvement of User in all the phases of Software Development Life Cycle, Availability of reusable components and the Risk Analysis between Waterfall model and Spiral model are clearly explained. Basing on these differences it is easy to choose the model depending on the requirements, time available, urgency the project has to be developed.

According to my knowledge Waterfall model best suits for large projects which are simple and Spiral model best suits for complex projects which might require changes in other phases.