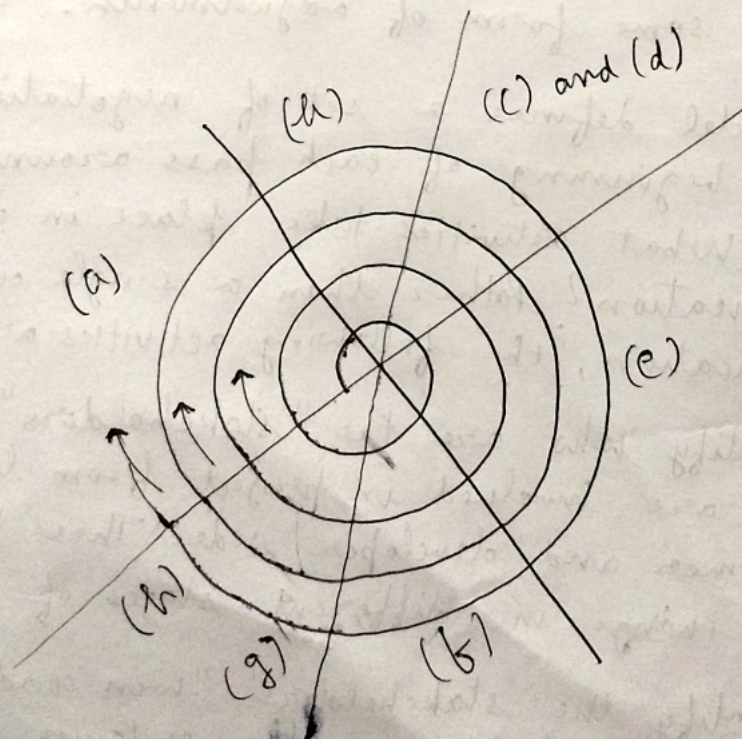


The Umluhlin Spiral Model

- The objective of spiral model is to elicit project requirements from the customer. In an ideal content, the developer simply asks the customer what is required and the customer provides sufficient detail to proceed. Unfortunately, this rarely happens.
- We need to do negotiations. The customer wins by getting the system or product that satisfies the majority of the customer's needs and the developer wins by working to realistic and achievable budgets and deadlines. There has to be some form of adjustments.
- This model defines a set of negotiation activities at the beginning of each pass around the spiral. What activities take place in customer communication? Rather than a single customer communication, the following activities are defined:
 - a) Identify who are the "stakeholders" → people who are involved in project from both customer and developer side. These people may change in different stages of project.
 - b) Identify the stakeholders' "win condition" → what stakeholders in the customer side desire and prioritize them in the subsequent stages. But sometimes it is orthogonal.

- Same step
- c) Negotiation of the stakeholders' win conditions to reconcile them into a set of win-win conditions for all concerned.
 - d) Establish the next level objectives, constraints and alternatives
 - e) Evaluate the process and product . alternatives and resolve risks
 - f) Define next level of product and process, including partitions.
 - g) Validate product and process definitions.
 - h) Review and comment.



The WinWin spiral model