

CSE 307 (Software Engineering)

Class Test –IV

July 7, 2021

The answer script must be hand written and it must be uploaded in the moodle link within 10 minutes after exam is over.

Total marks: 20

Total Time Allocated: 30 Minutes

Consider that you are to estimate the cost of implementation of ERP (Enterprise Resource Planning) for ABC Textile Company Limited. The following points describe different alternatives and associated cost in different activities:

- The total number of license required by ABC Textile Ltd. is 500 users. It will cost \$1000 per user license if Oracle ERP is purchased and customized.
- There must be customization required to implement this software. The chance of a few customizations is 40% and the chance of lots of customization is 50%. It is estimated that it requires 2 man month, 10 man month and 20 man month for minimum, medium and lots of customizations. The cost of resources for customization is \$10000 per month.
- The training requirements for 500 users are different for different types of development. It will require one day training if a customized software is developed by the company. But Oracle ERP requires 2 day training. The training will be given in batches of 20 users. The trainers will get paid at the rate of \$3000 per month.
- Development of ERP might have two different options. One is development from scratch using Java based software development framework and the other is reusing the code of open source ERP. There is a 40% chance that you can reuse half of the codes written by open source and it will take 12 months for a team of 20 developers to develop the ERP. Otherwise it might take 18 months with the same team by reusing 30% code. Development from scratch requires 36 months to develop the ERP. The average salary of these developers is \$4000 per month.

Which of the above mentioned strategy is optimal in the above mentioned scenario? Demonstrate this using decision tree.