

| **Title:**  Project Summary |
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**Objective:** To write Project Summary

**Expected Outcome of Experiment:**

| **Course Outcome** | **After successful completion of the course students should be able to** |
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| CO1 | Provide an overview of software project management and the project planning. |

**Books/ Journals/ Websites referred:**

1. *Bob Hughes, Mike cotterell, Rajib Mall“Software Project Management”, fifth Edition, Tata McGraw Hill, Special Indian Edition*
2. *Royce, “Software Project Management”, Pearson Education, 1999.*
3. *Project Management Institute: “A Guide to the Project Management Body of Knowledge (PMBOK Guide)” 5th Edition Project Management Institute.*
4. *John Nicholas, Herman Steyn, “Project Management for Business Engineering and Technology” 4th Edition.*

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**Pre Lab/ Prior Concepts:**

Project Activities, Work Breakdown Structure, Project Network, Cost & Risks involved in project etc.

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**New Concepts to be learned**

Drafting Project Summary.

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**Work-out :**

**Students are required to draft Project Summary of their respective project which will include Project Scope, Project Breakdown, Project Network, Resource Allocation & utilization, risks etc.**

**Expt 1:**

RFP (Request for proposal) is created by the customer (individual/organization which wants the project made for them) and sent to software firms which would be interested in developing the product. Our RFP included all the deliverables expected and all functional details of the product. It also included legal terms and conditions that would be imposed on the executing firm. Budget and timeline of the project execution and delivery were also part of the RFP. Lastly, it included details for submission of proposals by interested firms.

**Expt 2:**

In the 2nd experiment we prepared the project proposal which was sent to the client firm, it contained all the details, technical as well as non-technical, of the project.

The client was assured of professional and quality work done in stipulated budget and timeline and the firm's past record with similar projects was described. Detailed breakdown of the budget and execution timeline was also provided. Details of the personnel who will be involved in the project were also included. Thus, in summary, all requirements about the project were included in the proposal.

**Expt 3:**

In this experiment, we identified the activities of the project and split them into three groups, namely- Front-end and backend development, system development and testing, maintenance and deployment. We noted the predecessors of each activity i.e. the activities that have to be completed before the start of a particular activity. The estimated time required for each activity is also noted and then AOA/AON diagrams are created based on the data. The AOA and AON diagrams are then used to estimate the early start, early finish, late start and late finish of the activities. The critical path is then found out which is the sequence of project network activities which add up to the longest overall duration, regardless if that longest duration has float or not. This determines the shortest time possible to complete the project.

**Expt 4:**

In the 4th experiment, we estimated the project cost using cost benefit evaluation techniques. Previously, in the project proposal, we had mentioned the cost and budget of the project. We now take into account the estimated budget and evaluate all kinds of cost (fixed, variable, direct, indirect, etc)

Using the formulas, we calculate Payback period, NPV and Return on Investment. We take into account factors like discount rate, yearly projected cash flow, etc to make these calculations

**Expt 5:**

In Experiment 5,titled Risk & PERT Analysis we accounted for all the risks that the project entails, we analysed the risks on the basis of their likelihood and impact. There were risks that were highly likely but were expected to have limited impact and there were also risks that were very unlikely to happen but if they were to happen the impact would be high. It is important to classify risks to ensure that they are accounted for appropriately while executing the project. The projects will always have certain risks, it’s the responsibility of the Project Manager to predict them and take measures to prevent them and if needed mitigate the losses.

**Expt 6:**

In experiment 6, titled Resource utilisation, we converted the rough time table from the last experiment into a detailed timeline, and made a Gantt Chart for the same. This helps us break down the activities and makes it easier to visualise the share of workload over a period of time. The tasks in the schedule are divided amongst the project manager amongst the group in the most efficient way such that maximum utilisation of the available resources is done. Accordingly, we make a resource table by conducting resource leveling and resource smoothing.

**Expt 7:**

In the 7th Experiment, we were supposed to prepare a baseline budget and calculate the earned value. This involved new concepts like Planned Value, Actual Cost, and Earned Value. After learning these concepts, we prepared a baseline budget table. This includes calculating SV, SPI, CV, CPI using the previously established values such as cost per day, resources, etc