**CMPE 312 “Software Engineering”**

**Acquaintance with MS PROJECT tool**

**Tasks:**

1. Consider the sample file MS-PROJECT-GANTT.mpp; use Erik Larson tutorial (see p. 3 below) for your help
2. Analyze the project described in the file,
   1. Consider the project tasks,
   2. Hierarchy used,
   3. Interdependences used,
   4. Human resources used
   5. Timeline used
   6. Gantt chart used
3. Understand how can be
   1. New tasks created
   2. New summary (hierarchical) task created
   3. Durations and interdependences specified
   4. Human resources defined
   5. Human resources assigned to tasks
   6. Gantt charts constructed
4. For the project described in the sample file, draw its hierarchical diagram (similar to that shown in Fig. 1 and explained in Table 1) with inter-dependences representation (use MS Word or other appropriate tool for it). Show hierarchy by not arrowed lines and dot qualified numbering, and interdependences by arrowed lines.
5. Use MS PROJECT tool to describe the project represented by its hierarchical diagram with interdependences shown in Fig. 1 and Table 1. Hierarchical links are shown by not arrowed lines and dot qualified numbers, and interdependences by arrowed lines.
   1. Specify summary (hierarchical) tasks
   2. Specify tasks
   3. Specify tasks durations and interdependences
   4. Specify 4 software engineers (Ahmet, Bob, Alice, Ayse) as human resources
   5. Assign the human resources to the tasks
   6. Construct Gantt chart for the project
   7. Assume the project starts 23.03.2021

Fig. 1. Hierarchical diagram of the Code developing project. Hierarchical links are shown by not arrowed lines and dot qualified numbers. Interdependences are shown by arrowed lines

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task# | Task ID | Task name | Task duration (day) | Preceding tasks |
|  | 0 | Code developing |  |  |
|  | 0.1 | Coding |  |  |
|  | 0.1.1 | Implement components | 15 |  |
|  | 0.1.2 | Integrate components | 10 | 0.1.1 |
|  | 0.1.3 | Fix bugs | 7 | 0.1.2 |
|  | 0.2 | Testing |  |  |
|  | 0.2.1 | Design system tests | 3 |  |
|  | 0.2.2 | Design unit tests | 5 |  |
|  | 0.2.3 | Design integration tests | 4 |  |
|  | 0.2.4 | Conduct unit tests | 4 | 0.1.3, 0.2.2 |
|  | 0.2.5 | Conduct integration tests | 4 | 0.1.3, 0.2.3 |
|  | 0.2.6 | Conduct system tests | 3 | 0.1.3, 0.2.1 |
|  | 0.2.7 | Prepare test document | 5 | 0.2.4, 0.2.5, 0.2.6 |
|  | 0.3 | Prepare deliverables | 5 | 0.2.7 |

Table 1. Description of the tasks and their dependences from Fig. 1

**MS Project Tool tutorial by Erik Larson:**

* **01 What you see when you open MS Project 2013,** [here](https://www.youtube.com/watch?v=o3RZ1zat-eo)**!**
* **02 How to create a WBS,** [here](https://www.youtube.com/watch?v=4SYXJpbvPfs)**!**
* **03 How to code a WBS,** [here](https://www.youtube.com/watch?v=ckHLxP38kOY)**!**
* **04 Manual Scheduling vs Auto Scheduling,** [here](https://www.youtube.com/watch?v=h_frVf7u1fw)**!**
* **05 How to Enter Estimated Duration,** [here](https://www.youtube.com/watch?v=zSPJ3Lq2a44)**!**
* **07 How to enter predecessor information to create a project Schedule,** [here](https://www.youtube.com/watch?v=tjaHrOwyNGU)**!**
* **08 How to change a timescale,** [here](https://www.youtube.com/watch?v=k97Kb6OM5Pg)**!**
* **09 Formatting a Gantt chart,** [here](https://www.youtube.com/watch?v=TwBjSBaf2X8)**!**

More information on tutorial see <https://staff.emu.edu.tr/alexanderchefranov/Documents/CMPE412/Chapter-4%2011032017.pptx> , slide #22

**Grading policy: 50% attendance+50% explanations on the work done**