Illinois Institute of Technology
CS 587 – Software Project Management
<u>Assignment-2 Report</u>

St. Name: Shiva Sankar Modala

St. ID: A20517528

I made changes for the assignment-1 as per the corrections suggested by TA. I made few mistakes in precedence order, resource allocation. Because of these changes, there was slight change in the completion date of assignment-1.

3. Feed the information provided in this handout in MS Project to create the Project Plan and the Network Diagram
Ans: **Write plan**
(a). Amount of Work = 123 pages

(b). Effort will be calculated as:
Work/ Productivity Rate = 123/ 4 pages/ Hour
$\qquad$ =30.75 hrs/ 1 Head Count
$\qquad$ =30.75/8 days per 1 Head Count
$\qquad$ =3.84375 days/ 1 Head Count

(c). Duration will be calculated as:
Effort/#HeadCount = 3.84375 days / 1HC
Duration for write plan =3.84375 days

Similar to above, I calculated the below table.

Note: Head Count column represents the Head Count I took for the assignment-2

Tasks	Amount of Work	Productivity	Effort= Work/Productivity Rate	Head Count	Duration= Effort/#HeadCount
Write plan	123 pages	4 pages/Hour	123 / 4 = 30.75 hrs = 3.84 days	1	3.84 / 1 = 3.84 days
Preparation for review	123 pages	5 pages/Hour	123 / 5 = 24.6 hrs = 3.08 days	5	3.08 / 5 = 0.62 days
Review Meeting	123 pages	8 pages/Hour	123 / 8 = 15.38 hrs	6	1.92 / 6 = 0.32 days

			= 1.92 days		
Rework	76 defects	5 defects/Hour	76 / 5 = 15.2 hrs = 1.9 days	2	1.9 / 2 = 0.95 days
Write requirements	478 Req	5 Req/Hour	478 / 5 = 95.6 hrs = 11.95 days	6	11.95 / 6 = 1.99 days
Preparation for review	478 Req	5 Req/Hour	478 / 5 = 95.6 hrs = 11.95 days	4	11.95 / 4 = 2.99 days
Review Meeting	478 Req	8 Req/Hour	478 / 8 = 59.75 hrs = 7.47 days	5	7.47 / 5 = 1.49 days
Rework	291 defects	5 defects/Hour	291 / 5 = 58.2 hrs = 7.28 days	5	7.28 / 5 = 1.46 days
Routers	7	2 Routers/day	7 /2 = 3.5 days	4	3.5 / 4 = 0.88 days
Bridge	7	2 Bridges/day	7 / 2 = 3.5 days	4	3.5 / 4 = 0.88 days
Install Server	15 servers	1 server/day	15 / 1 = 15 days	6	15 / 6 = 2.5 days
Install Clients	37 clients	10 clients/day	37 / 10 = 3.7 days	4	3.7 / 4 = 0.93 days
Install Development Tools	16 tools	5 tools/day	16 / 5 = 3.2 days	4	3.2 / 4 = 0.8 days
Install Testing Tools	18 tools	4 tools/day	18 / 4 = 4.5 days	5	4.5 / 5 = 0.9 days
Write DD	324 pages	4 pages/Hour	324 / 4 = 81 hrs = 10.12 days	6	10.12 / 6 = 1.69 days
Preparation for DD	324 pages	5 pages/Hour	324 / 5 = 64.8 hrs = 8.1 days	4	8.1 / 4 = 2.03 days
Review Meeting	324 pages	10 pages/Hour	324 / 10 = 32.4 hrs = 4.05 days	5	4.05 / 5 = 0.81 days

Rework	288 defects	7 defects/Hour	288 / 7 = 41.14 hrs = 5.14 days	5	5.14 / 5 = 1.03 days
Create Data Model	91 pages	1 page/Hour	91 / 1 = 91 hrs = 11.38 days	5	11.38 / 5 = 2.28 days
Preparation for DM	91 pages	5 pages/Hour	91 / 5 = 18.2 hrs = 2.28 days	4	2.28 / 4 = 0.57 days
Review Meeting	91 pages	10 pages/Hour	91 / 10 = 9.1 hrs = 1.14 days	5	1.14 / 5 = 0.23 days
Rework	189 defects	5 defects/Hour	189 / 5 = 37.8 hrs = 4.72 days	5	4.72 / 5 = 0.94 days
Write Code	6325 SLOC	5 SLOC/Hour	6325 / 5 = 1265 hrs = 158.12 days	8	158.12 / 8 = 19.76 days
Prepare/Execute Test Cases	572 test cases	5 Test Case/Hour	572 / 5 = 114.4 hrs = 14.3 days	6	14.3 / 6 = 2.38 days
Fix Found Defects	512 Defects	10 Defects/Day	512 / 10 = 51.2 days	7	51.2 / 7 = 7.31 days
Test Fixed Defects	512 Defects	12 Defects/Day	512 / 12 = 42.67 days	6	42.67 / 6 = 7.11 days
Preparation for Code Inspection	6325 SLOC	145 SLOC/Hour	6325 / 145 = 43.62 hrs = 5.45 days	4	5.45 / 4 = 1.36 days
Code Inspection Meeting	6325 SLOC	180 SLOC/Hour	6325 / 180 = 35.14 hrs = 4.39 days	5	4.39 / 5 = 0.88 days
Rework	912 defects	7 defects/Hour	912 / 7 = 130.29 hrs = 16.28 days	5	16.28 / 5 = 3.26 days

Write test plan (TP)	256 pages	5 pages/Day	256 / 5 = 51.2 days	6	51.2 / 6 = 8.53 days
Preparation for TP	256 pages	5 pages/Hour	256 / 5 = 51.2 hrs = 6.4 days	4	6.4 / 4 = 1.6 days
Review TP Meeting	256 pages	10 pages/Hour	256 / 10 = 25.6 hrs = 3.2 days	5	3.2 / 5 = 0.64 days
Rework	184 defects	5 defects/Hour	184 / 5 = 36.8 hrs = 4.6 days	4	4.6 / 4 = 1.15 days
Execute TP (test cases)	475 test cases	12 test cases/day	475 / 12 = 39.58 days	6	39.58 / 6 = 6.6 days
Fix Found Defects	120 defects	6 defects/day	120 / 6 = 20 days	5	20 / 5 = 4 days
User Documentation	265 pages	5 page/Hour	265 / 5 = 53 hrs = 6.63 days	5	6.63 / 5 = 1.33 days
Preparation for UD review meeting	265 pages	5 pages/Hour	265 / 5 = 53 hrs = 6.63 days	4	6.63 / 4 = 1.66 days
Review UD Meeting	265 pages	10 pages/Hour	265 / 10 = 26.5 hrs = 3.31 days	5	3.31 / 5 = 0.66 days
Rework	189 defects	5 defects/Hour	189 / 5 = 37.8 hrs = 4.73 days	4	4.73 / 4 = 1.18 days
Training Handouts (TH)	210 pages	1 page/Hour	210 / 1 = 210 hrs = 26.25 days	6	26.25 / 6 = 4.38 days
Preparation for TH review meeting	210 pages	8 pages/Hour	210 / 8 = 26.25 hrs = 3.28 days	4	3.28 / 4 = 0.82 days
Review TH Meeting	210 pages	10 pages/Hour	210 / 10 = 21 hrs = 2.63 days	5	2.63 / 5 = 0.53 days
Rework	418 defects	15 defects/Hour	418 / 15 = 27.87 hrs = 3.48 days	4	3.48 / 4 = 0.87 days

4. Create a WBS with the required phases and activities to complete this project

Ans: Created WBS with the required phases and activities to complete the project (Assignment#2).

5. Assign the Resources to the Tasks making any assumptions you consider appropriate (Software Engineering Assumptions).
Ans: Assigned the resources to the tasks taking into consideration all the software engineering assumptions.

6. What is the earliest finish date for this project if it is scheduled to start on 9/27/22? (Under this scenario, as soon as engineers complete their tasks on Homework#1 you will assign them to start working on tasks for Homework#2 project)

Ans: The earliest finish date for this project if it is scheduled to start on 09/27/22 is

02/22/2023 i.e., February 22, 2023
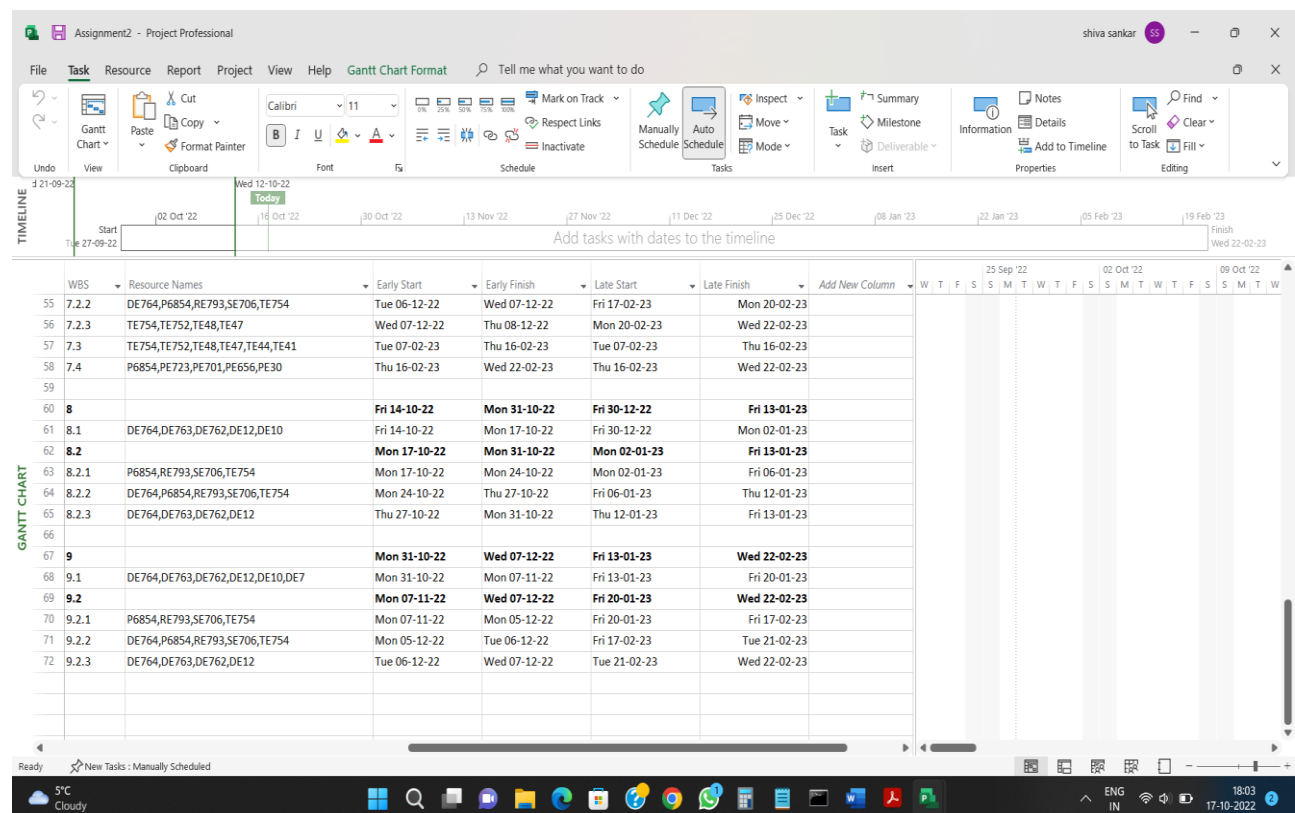
7. Is it feasible to complete this project (Assignment#2 project) 2 weeks after the completion date you identified for the project in Assignment#1? Explain.

Ans: Yes, it is feasible to complete this project (Assignment#2 project) 2 weeks after the completion date of Assignment#1 project. If we carefully assign the available resource, we can work on two projects parallelly and complete them with a gap of 2 weeks.

In my case, since new resources were available, I allocated more resources to Assignment#2 project compared to Assignment#1 project. Hence, it completed earlier than Assignment#1 project.

9. Submit your Comments regarding the start and completion dates and resources assignments for the two projects in a PDF document called Analysis.pdf.
Ans:

Assignment#1 Project:

Start date: 09/12/2022 i.e., September 12, 2022

Completion date: 03/17/2023 i.e., March 17, 2023

Assignment#2 Project:

Start date: 09/27/2022 i.e., September 27, 2022

Completion date: 02/22/2023 i.e., February 22, 2023