UNIVERSITY OF MASSACHUSETTS BOSTON

MSIS 630 P 1 01 PROJECT & CHANGE MANAGEMENT SPRİNG 2023

A&D HIGHTECH
MANAGING PROJECT FOR SUCCESS

Prof. Michael Dotto

Nardos Solomon Akalu

Mahua Nitin Hiray

UMASS BOSTON

Deniz Oktay Tuncay

Shreeya Bhushan Satav

A&D HIGHTECH
MANAGING PROJECT FOR SUCCESS

INDEX

GROUP Tau

UMASS BOSTON

PROJECT PLAN

1	**1**	**Overall Project**				**Fri 14-10-22**	**Mon 10-04-23**	**$799,310.00**
2	**1.1**	**Project Management**						**$76,200.00**
3	1.1.1	Manage Project	127	Chris Johnson (Project Manager)	59FF	Fri 14-10-22	Sun 09-04-23	$76,200.00
4	**1.2**	**System Requirements**						**$21,000.00**
5	1.2.1	Gather Business Requirements	8	Ryan Neff (Functional Lead),Stacy Lyle (Functional Analyst)		Sun 09-04-23	Sun 09-04-23	$4,800.00
6	1.2.2	Design Business Process Flows	4	Ryan Neff (Functional Lead),Stacy Lyle (Functional Analyst)	5	Mon 10-04-23	Mon 10-04-23	$2,400.00
7	1.2.3	Finalize Technical Requirements	6	Rick Burke (Infrastructure Lead)		Sun 09-04-23	Sun 09-04-23	$3,600.00
8	1.2.4	Create Operational Requirements	15	Rick Burke (Infrastructure Lead),Ryan Neff (Functional Lead),Stacy Lyle (Functional Analyst)	5,6	Tue 11-04-23	Tue 11-04-23	$9,000.00
9	1.2.5	Identify Technical Infrastructure N	2	Rick Burke (Infrastructure Lead)	7,8	Wed 12-04-23	Wed 12-04-23	$1,200.00
10	**1.3**	**Software Requirements**						**$24,000.00**
11	1.3.1	Create Functional Requirements			5,6,8	Wed 12-04-23	Wed 12-04-23	$0.00
12	1.3.2	Capture Customer Profile	4	Ryan Neff (Functional Lead)		Wed 12-04-23	Wed 12-04-23	$2,400.00
13	1.3.3	View and Search Product Catalog	6	Ryan Neff (Functional Lead)		Wed 12-04-23	Wed 12-04-23	$3,600.00
14	1.3.4	Updating and Calculating Shopping	3	Ryan Neff (Functional Lead)	13	Thu 13-04-23	Thu 13-04-23	$1,800.00
15	1.3.5	Taking Payments	6	Stacy Lyle (Functional Analyst)		Wed 12-04-23	Wed 12-04-23	$3,600.00
16	1.3.6	Submit Order	4	Ryan Neff (Functional Lead)	12,13,14,15	Fri 14-04-23	Fri 14-04-23	$2,400.00
17	1.3.7	Check Order History & Order Stats	3	Ryan Neff (Functional Lead)	16	Mon 17-04-23	Mon 17-04-23	$1,800.00
18	1.3.8	Create Data Requirements	3	Stacy Lyle (Functional Analyst)	12,13	Thu 13-04-23	Thu 13-04-23	$1,800.00
19	1.3.9	Create ERP Interface Requirement	7	Stacy Lyle (Functional Analyst)	16SS	Fri 14-04-23	Fri 14-04-23	$4,200.00
20	1.3.10	Create User Interface Requiremer	4	Stacy Lyle (Functional Analyst)	11SS	Wed 12-04-23	Wed 12-04-23	$2,400.00
21	**1.4**	**Detailed Design**			**10**			**$64,770.00**
22	1.4.1	Design Capture Customer Profile F	13.5	Marc Sanders (Development Lead),Ryan Neff (Functional Lead)[50%]		Tue 18-04-23	Tue 18-04-23	$8,400.00
23	1.4.2	Design View and Search Product C	13.5	Developer 1 (TBD),Ryan Neff (Functional Lead)[50%]		Tue 18-04-23	Tue 18-04-23	$9,210.00
24	1.4.3	Design Updating and Calculating Sl	6	Developer 1 (TBD),Ryan Neff (Functional Lead)	23	Wed 19-04-23	Wed 19-04-23	$5,760.00
25	1.4.4	Design Taking Payments Pages & C	6	Marc Sanders (Development Lead),Stacy Lyle (Functional Analyst)		Tue 18-04-23	Tue 18-04-23	$3,600.00
26	1.4.5	Design Submit Order Pages & Com	16	Marc Sanders (Development Lead),Ryan Neff (Functional Lead)	22,23,24,25	Thu 20-04-23	Thu 20-04-23	$5,400.00
27	1.4.6	Design Check Order History & Ord	4	Marc Sanders (Development Lead),Ryan Neff (Functional Lead)	26	Fri 21-04-23	Fri 21-04-23	$2,400.00
28	1.4.7	Design Logical & Physical Data Mo	18	Sanjay Vohra (DBA),Stacy Lyle (Functional Analyst)		Thu 20-04-23	Thu 20-04-23	$10,800.00
29	1.4.8	Design ERP Interface	20	Developer 1 (TBD),Stacy Lyle (Functional Analyst)	22,23,24,25	Thu 20-04-23	Thu 20-04-23	$19,200.00
30	**1.5**	**Test Planning**						**$33,600.00**
31	1.5.1	Gather Testing Requirements	14	Kara Siposki (Test Lead),Todd Eliason (Tester)	11	Thu 13-04-23	Thu 13-04-23	$8,400.00
32	1.5.2	Create System Test Plan & Test Ca	20	Kara Siposki (Test Lead),Todd Eliason (Tester)	31,21	Mon 24-04-23	Mon 24-04-23	$12,000.00
33	1.5.3	Write System Test Scripts	22	Kara Siposki (Test Lead),Todd Eliason (Tester)	32	Tue 25-04-23	Tue 25-04-23	$13,200.00
34	**1.6**	**Technical Infrastructure**						**$40,260.00**
35	1.6.1	Create Development Environment	20	Rick Burke (Infrastructure Lead)	9	Thu 13-04-23	Thu 13-04-23	$12,000.00
36	1.6.2	Create Testing Environment	34.2	Rick Burke (Infrastructure Lead)[90%]	35	Fri 14-04-23	Fri 14-04-23	$540.00
37	1.6.3	Support Development Environmer	3.8	Rick Burke (Infrastructure Lead)[10%]	35	Fri 14-04-23	Fri 14-04-23	$60.00
38	1.6.4	Support Testing Environment & De	46	Rick Burke (Infrastructure Lead)	36	Mon 17-04-23	Mon 17-04-23	$27,600.00
39	1.6.5	Support Database	4.6	Sanjay Vohra (DBA)[10%]	47	Mon 17-04-23	Mon 17-04-23	$60.00
40	**1.7**	**Development & Unit Test**			**35**			**$142,060.00**
41	1.7.1	Build Capture Customer Profile Pa	13	Developer 2 (TBD)	22	Wed 19-04-23	Wed 19-04-23	$18,200.00
42	1.7.2	Build View and Search Product Cat	12	Developer 3 (TBD)	23	Wed 19-04-23	Wed 19-04-23	$16,800.00
43	1.7.3	Build Updating and Calculating Sh	7	Developer 3 (TBD)	24,42	Thu 20-04-23	Thu 20-04-23	$9,800.00
44	1.7.4	Build Taking Payments Pages & Co	6	Developer 2 (TBD)	25	Wed 19-04-23	Wed 19-04-23	$8,400.00
45	1.7.5	Build Submit Order Pages & Comp	24	Developer 2 (TBD),Developer 3 (TBD)	26,41,42,43,44	Fri 21-04-23	Fri 21-04-23	$33,600.00
46	1.7.6	Build Check Order History & Order	6	Marc Sanders (Development Lead)	27	Mon 24-04-23	Mon 24-04-23	$3,600.00
47	1.7.7	Build Logical & Physical Data Mod	15.5	Sanjay Vohra (DBA)[50%]	28	Fri 21-04-23	Fri 21-04-23	$300.00
48	1.7.8	Build ERP Interface	18	Developer 1 (TBD)	29	Fri 21-04-23	Fri 21-04-23	$23,760.00
49	1.7.9	Support Development & Assembly	46	Ryan Neff (Functional Lead),Stacy Lyle (Functional Analyst)	21	Mon 24-04-23	Mon 24-04-23	$27,600.00
50	**1.8**	**Testing**						**$238,400.00**
51	1.8.1	Perform Assembly Testing			31	Fri 14-04-23	Fri 14-04-23	$0.00
52	1.8.2	Perform Phase 1 Testing	12	Marc Sanders (Development Lead)	41,42,43	Fri 21-04-23	Fri 21-04-23	$7,200.00
53	1.8.3	Perform Phase 2 Testing	20	Developer 1 (TBD),Developer 2 (TBD),Developer 3 (TBD),Marc Sanders (Development Lead)	44,45,46,52,47,48	Tue 25-04-23	Tue 25-04-23	$23,600.00
54	1.8.4	Perform System Testing	160	Developer 1 (TBD),Developer 2 (TBD),Developer 3 (TBD),Kara Siposki (Test Lead),Marc Sande	51,32,33	Wed 26-04-23	Wed 26-04-23	$142,400.00
55	1.8.5	Perform Validation Testing	80	Developer 1 (TBD),Developer 2 (TBD),Developer 3 (TBD),Kara Siposki (Test Lead),Marc Sande	54	Thu 27-04-23	Thu 27-04-23	$65,200.00
56	**1.9**	**Deployment**			**50**			**$159,020.00**
57	1.9.1	Implement System	80	Developer 1 (TBD),Developer 2 (TBD),Developer 3 (TBD),Kara Siposki (Test Lead),Marc Sande		Sun 09-04-23	Sun 09-04-23	$71,200.00
58	1.9.2	Deploy To Production	8	Developer 1 (TBD),Developer 2 (TBD),Developer 3 (TBD),Kara Siposki (Test Lead),Marc San	57	Mon 10-04-23	Mon 10-04-23	$7,120.00
59	1.9.3	Project Wrap-up	90	Developer 1 (TBD),Developer 2 (TBD),Developer 3 (TBD),Kara Siposki (Test Lead),Marc Sande	58	Tue 11-04-23	Tue 11-04-23	$80,700.00

GROUP Tau

PROJECT REPORT

PROJECT OVERVIEW

MON 26-05-03   TUE 18-11-03

% COMPLETE

25%

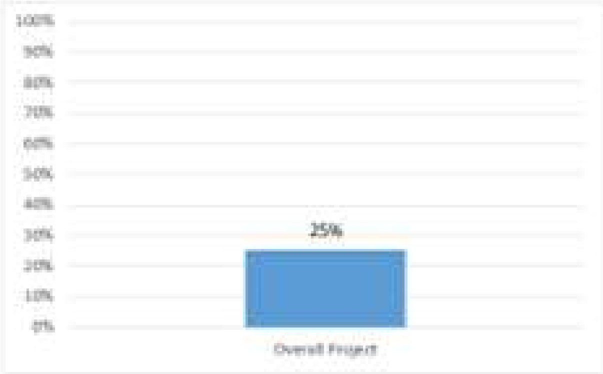
MILESTONES DUE

Milestones that are coming soon.

Name	Finish

% COMPLETE

Status for all top-level tasks. To see the status for subtasks, click on the chart and update the outline level in the Field List.



LATE TASKS

Tasks that are past due.

Name	Start	Finish	Duration	Resource Names
Manage Project	Mon 26-05-03	Tue 18-11-03	127 days	Chris Johnson (Project Manager)
Gather Business Requirements	Mon 26-05-03	Mon 26-05-03	1 day	Ryan Neff (Functional Lead),Stacy Lyle (Functional Analyst)
Design Business Process Flows	Tue 27-05-03	Tue 27-05-03	1 day	Ryan Neff (Functional Lead),Stacy Lyle (Functional

COST OVERVIEW

COST OVERVIEW

MON 26-05-03   TUE 18-11-03

COST

$799,310.00

REMAINING COST

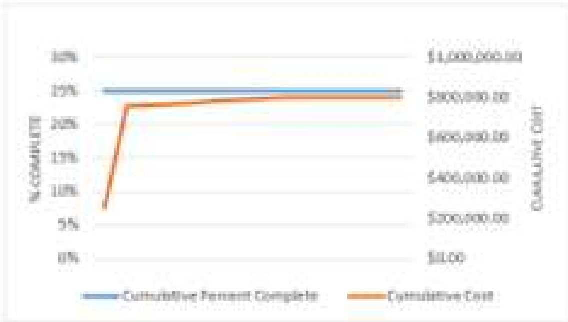
$773,060.00

% COMPLETE

25%

PROGRESS VERSUS COST

Progress made versus the cost spent over time. If % Complete line below the cumulative cost line, your project may be over budget.



COST STATUS

Cost status for top level tasks.

Name	Actual Cost	Remaining Cost	Baseline Cost	Cost	Cost Variance
Overall Project	$26,250.00	$773,060.00	$0.00	$799,310.00	$799,310.00

COST STATUS

Cost status for all top-level tasks. Is your baseline zero?

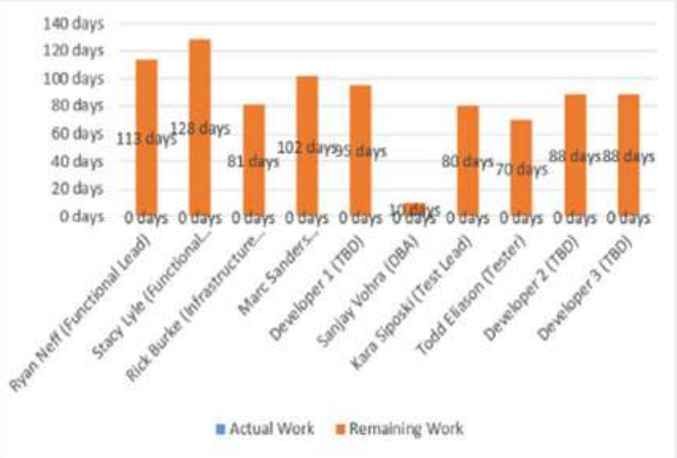
Try setting as baseline

PROJECT REPORT

OVERALLOCATED RESOURCES

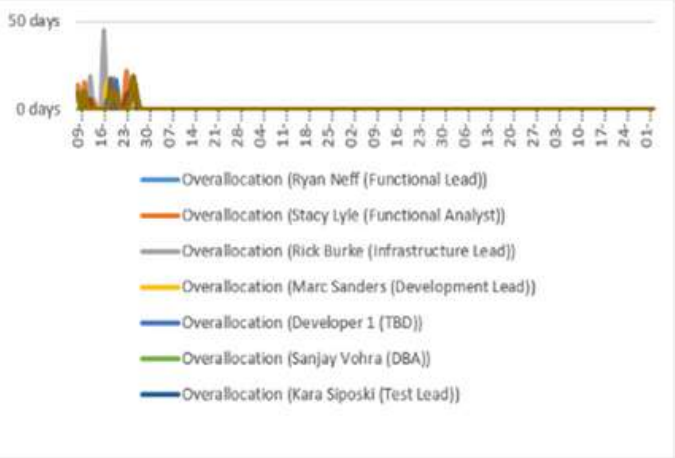
WORK STATUS

Work status for overallocated resources.



OVERALLOCATION

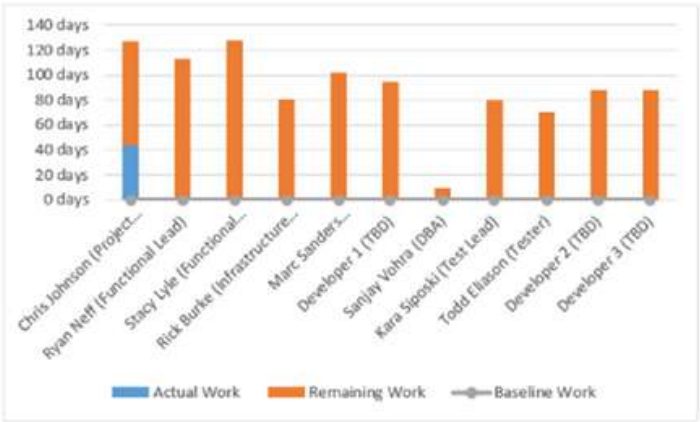
Surplus work assigned to overallocated resources. To resolve overallocations use Team Planner View



RESOURCE OVERVIEW

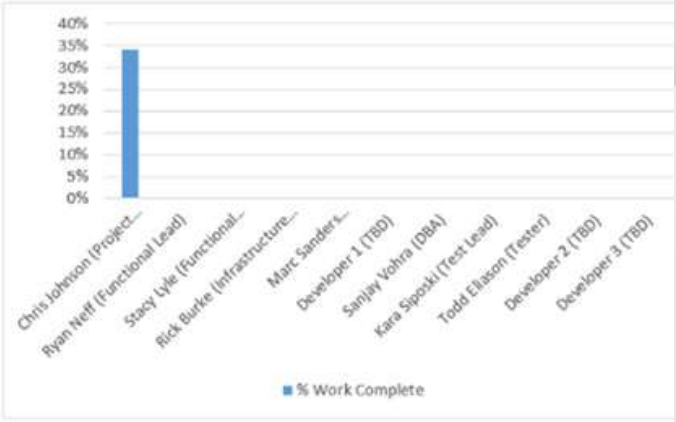
RESOURCE STATS

Work status for all work resources.



WORK STATUS

% work done by all the work resources.



RESOURCE STATUS

Remaing work for all work resources.

Name	Start	Finish	Remaining Work
Chris Johnson (Project Manager)	Mon 26-05-03	Tue 18-11-03	83.25 days
Ryan Neff (Functional Lead)	Mon 26-05-03	Fri 13-06-03	113.25 days
Stacy Lyle (Functional Analyst)	Mon 26-05-03	Fri 13-06-03	128.25 days
Rick Burke (Infrastructure Lead)	Mon 26-05-03	Fri 13-06-03	81 days
Marc Sanders (Development Lead)	Fri 30-05-03	Fri 13-06-03	101.75 days

NARRATIVE RESPONSE

- **What is the projected completion date?**

The project will take 127 days to complete, thus if work begins on 26th May 2023, without any holidays, and any weekends, the project will be finished on 18th November 2003. The project would be completed shortly before the 2023 Christmas season. The task sheet created in the project management plan revealed the technical infrastructure as 104 days in duration, the longest in the project. All of the tasks are shown on a Gantt chart, where each task and its requirements are arranged in a logical order to indicate how they are related to one another.

- **What is the total project cost? How much of those costs are labor and how much are capital? What can you say about the labor allocations?**

When considering the resource schedules and their associated costs the estimated total project cost is $897810. Total labor costs are estimated at approximately $799,310 and the materials will cost $98,500.
Total Labor Cost: $799310
Windows 2012 workstations (12 units - $3000) =$36000
Windows 2012 servers (5 units -$12500) = $62500
Total Capital cost=$36000+$62500=$98500
Hence, the total cost is $799310 + $98500 = $897810
According to the case, most of the resources, and labor are hired at a rate of flat for $75 per hour. With this standard, the laborers are allocated, assuming a standard hour of 8hrs a day.

NARRATIVE RESPONSE

- **What is the project's critical path? What are the major risk elements associated with this project, how would you assess the level of risk?**

The critical path of the project is 1-3-5-6-8-9-11-12-13-14-15-16-18-19-20-22-23-24-25-26-27-28-29-31-32-33-35-36-37-38-39-41-42-43-44-45-46-48-49-51-52-53-54-55-57-58-59.
If these critical tasks are delayed, then it will delay the completion of the total project.
There are four major risks associated with this project including technical risks, external risks, organizational risks, and project management risks. Other than them, scope creep and resource risks are also big and need mitigation. The management must make sure that there is no scope creep and technical issues. Resource Levelling and loading must be done to mitigate the resource risk.
The risk level is high since the ending date of the project is close to the expected completion date. Therefore, the management must try their best to finish the project on time and lessen some of the activities on the critical path. It can be observed that the testing, as well as the deployment stage, is consuming a lot of time. The testing must not be produced by the expected results and there is a must in going back to the designing stage for fixing the errors if the deadline will be missed and the entire effort of the team will be wasted. So, the project can be considered high risk since the high potential of delay and the immense consequences that will occur from this delay.

NARRATIVE RESPONSE

- **What is your conclusion on the potential for completing the project on time? What options might you propose to either get the project on track or other alternatives to salvage this project?**

It is potentially possible to complete the project before the holiday season but not without the company assuming a heavy amount of risk to quality, not to mention an increased amount of cost as well as decreasing the scope (requirements) of the project. Here we can see that A&D is trying to appeal to its upper management by cramming a custom project to be completed before the holiday season using contract developers and overworked employees. To have a working system up and running for the commercial masses, A&D must increase the cost (increase personnel) and reduce the scope (the number of requirements) to be functional for the company's goals

Another critical issue is that there are too much critical tasks that need to be done for the completion of the project to be on time. If one of the critical tasks is delayed, then the project will be delayed. Therefore, there are a few factors we need to consider. We need to avoid scope creep, a continuous change to the scope after the project has begun by being true to the project from day one and being vigilant about extra new features. Another factor to consider is the human resources of the contract developers because proper human resource management is important for the accuracy of both the cost and the completion date of the project.

NARRATIVE RESPONSE

To get this project on track, we can follow the below-mentioned practical techniques:

1. Work Overtime
2. Reallocate resources
3. Swap resources
4. Crash the schedule
5. Fast-track it
6. Prevent all scope change

Nardos Solomon Akalu
Deniz Oktay Tuncay
Mahua Nitin Hiray
GROUP Tau
Shreeya Bhushan Satav