Criterion B: Record of tasks

Task number	Planned action	Planned outcome	Time estimated (day)	Target completion date	Criterion
1	Looking for a client in a problem to provide a solution	Find client and set up the meeting to discuss about the problem.	4	01/06/2023	A
2	First meeting with client, Ms. Sunny.	Ms. Sunny discusses the problem with me and accepts my help.	1	04/06/2023	A
3	Find solution for Ms. Sunny's problem with success criterion	Derive a solution which is satisfactory and acceptable for her problem	4	08/06/2023	A
4	Research for checking the solution is technically achievable	Find suitable web API, Java libraries and algorithms.	7	15/06/2023	B
5	Check with my computer science teacher to make sure I'm on the proper track	Ms. Sunny confirms that this will be complicated but feasible	1	16/06/2023	A
6	Begin designing the program. Figure it out which services I will provide.	Pages planned out with the function of each page.	3	18/06/2023	B
7	create a graphical user interface sketch and outline how to link services and pages	Have the necessary GUI diagram and system diagram	4	15/07/2023	B
8	Show GUI diagram to Ms. Sunny and ask for last change.	Ms. Sunny would suggest some last changes and suggest color skim.	1	20/07/2023	B

9	Make System Structure overview diagram with differential permission to illustrate how program works.	System Structure overview diagram is going to create and help to make program as reference.	3	25/07/2023	B
10	Plan the principal data structure which is question object etc.	Create object relationship diagram and decide which variable would be used for each object.	5	30/07/2023	B
11	Plan database structure to store data of each object and make ER diagram	ER diagram will be created and used to give guideline to make the actual database	7	10/08/2023	B
12	Plan the principal and complex algorithm by using pseudocodes	Principal algorithms will be planned out and will be referenced for the actual program.	4	14/08/2023	B
13	Research about the suitable online database service	Decide which online database service will be used.	2	16/08/2023	B
14	study swing GUI	learn the basic layout and technique.	3	20/08/2023	C
15	Make the initial GUI layout with java swing library.	The login page and sign-up page will be created.	4	24/08/2023	B,C
16	build web server	use AWS EC2 service and establish elastic public IP	1	25/08/2023	C
17	study server	learn about basic Linux command	1	26/08/2023	C
18	develop web server	learn Nginx server program	1	27/08/2023	C
19	develop web server	system configuration by using vim	1	28/08/2023	C
20	develop web server	learn Node.js and implicate with in server	1	29/08/2023	C

21	develop web server	learn establish SSL connection with server	1	30/08/2023	C
22	develop web server	establish security limitation within server through	1	31/08/2023	C
23	develop web server	build Nginx program into server	1	01/09/2023	C
24	develop web server	implicate node.js with in server	1	02/09/2023	C
25	develop web server	implicate MySQL in server	1	03/09/2023	C
26	develop web server	develop MySQL database, make tables, and establish relationship	2	05/09/2023	C
27	develop web server	grant privileges to specific user to allow access data from external IP	1	06/09/2023	C
28	Establish database connection for the java program	try to connect to MySQL database but it was not working	2	08/09/2023	C
29	change the web server configuration	change server's security firewire setting	1	10/09/2023	C
30	design the hub GUI	the rough design of HUB page is created	1	11/09/2023	C
31	Create hub GUI page	The hub page will be created.	1	12/09/2023	C
32	assess and debug the functions in HUB page	find several bugs that is not work during with connecting with other class	1	13/09/2023	C
33	design the questionnaire page (task app) GUI	the rough design of questionnaire page (task app) is created	1	14/09/2023	C
34	Create questionnaire page design	The questionnaire page created.	1	15/09/2023	C

35	test and debug the functions in questionnaire page (task app) page	the page works quite well.	1	16/09/2023	C
36	Build full functional program for login, signup, hub, questionary page	The all functions will be available. And they will all be linked.	4	20/09/2023	C
37	evaluate and debug the functions in HUB page	ensure that the data is transferred between the classes by using its parameters. The bugs in this process are founded and fixed.	2	22/09/2023	C
38	Make student and teacher permission	The program can allow or block the use of certain services as differentiated permission.	2	24/09/2023	C
39	Build class, set-task, make-exam Set service and pages.	Teacher can make a class which student can join and make exam Set and assign task for their class.	1	25/09/2023	C
40	Construct database to store information of class, question, exam Set, task.	database of class, question, exam Set, task created.	1	26/09/2023	C
41	Build algorithm to treat the database information as Object in java program.	The information in database will be treated as Object with encapsulation.	1	27/09/2023	C
42	Research suitable web API to use ChatGPT	Decide which web API service will be used	4	04/10/2023	C
43	research the http library in java	learn how to use the http library to connect and communicate with API server directly	1	05/10/2023	C

44	build class to communicate with the API server	allow the program to send JSON file as request to any API.	1	06/10/2023	C
45	implicate ChatGPT API to the API class	the API key is generated, and the class can use ChatGPT and get response from it.	1	07/10/2023	C
46	build ChatGPT prompt	prompt is built and get quite accurate answer from ChatGPT.	1	08/10/2023	C
47	make responsparser() method	the method can get award mark and justification from JSON response of API server	1	09/10/2023	C
48	debug the Web API class	resolved some major problem.	1	10/10/2023	C
49	Develop auto grading system.	After the student finishes the task, the task is automatically graded by just comparing user answer and mark scheme. The essay question is graded by ChatGPT with justification.	2	15/10/2023	C
50	Debug auto grading system	Fine miner bugs and resolve them.	2	17/10/2023	C
51	study about KNN algorithm	learn how to implicate KNN algorithm and how to make it suitable.	3	20/10/2023	C
52	develop 2d array for the recommendation system	exam set data is stored within 2D array and send to KNN algorithm	1	21/10/2023	C

53	develop method to calculate the similarity between user's predicted grade and exam set difficulty	the method can calculate the similarity	1	22/10/2023	C
54	make method to recommend exam set	the method can return list of k number of exam set that is most like the user	1	23/10/2023	C
55	Develop suitable Exam Set recommendation system for Student	This recommendation system recommends the most similar Exam Set by comparing the student's expected grades with the difficulty of the Exam Set by topic.	4	27/10/2023	C
56	change the database structure	normalize database	2	30/10/2023	C
57	resolve problem from changing the database structure	the SQL is changed and resolve miner problem	1	31/10/2023	C
58	Develop task manager	Task manager GUI is created and connects with database.	1	01/11/2023	C
59	Add Class Owner, Affiliation Owner, Admin permission.	Differentiate service for those services.	1	02/11/2023	C
60	implicate the permission to each class	the HUB page is allowing the specific functions to reserved permissions	1	03/11/2023	C
61	Make simple admin panel to edit database directly with java program	All database information can be modified by admin.	1	04/11/2023	C

62	Develop class manager service	Class manager service will be created. Teacher and Class Owner can manage their class and student.	1	05/11/2023	C
63	develop predicted grade system	make algorithm to generate with user's task result	1	06/11/2023	C
64	develop predicted grade system	make algorithm that change user's predicted grade by using the user's task result	1	07/11/2023	C
65	develop predicted grade system	change the waging system of the credited point by difference between the user's predicted grade and the question.	1	08/11/2023	C
66	design the task manager class	the rough design of the task manager class is created	1	09/11/2023	C
67	develop the task manager class	the Gui is created, and major function is built	1	10/11/2023	C
68	study java Jtable class	learn java Jtable class and I am able to customize Jtable	1	11/11/2023	C
69	customize Jtable for task manager	the Jtable can show button, gauge bar, and task state.	1	12/11/2023	C
70	customize Jtable for task manager's subnarial class	the Jtable of the task manager's subnarial class is customize as use of classes	1	13/11/2023	C
71	improve security	implicating the SHA256 hash algorithm to the login and sing up part	1	14/11/2023	C
72	Test program in IGCSE Physics Revision Club	The program will be evaluated in Club and	2	10/12/2023	E

	and gather feedback from Ms. Sunny and Students	find unexpected error during students are using this program			
73	Update GUI design to make familiar and implicate color scheme which is school theme.	The program will look greater and familiar. And it becomes more colorful with color scheme, sky blue.	4	14/12/2023	C
74	Get some final feedback from Ms. Sunny	Ms. Sunny will suggest some last min change and extra service to add in program	2	16/12/2023	E
75	Recode the video to show how to use program to students and it is fulfilling the success criteria	the video is recorded.	1	20/12/2023	D
76	video editing	the video is edited to be fitted within 7min	1	21/12/2023	D
77	voice record	I recorded my voice to dub the video	1	22/12/2023	D
78	video editing	the voice is inserted into the video.	1	23/12/2023	D
79	Write Criterion E by using Ms. Sunny feedback	the evaluation of Criterion E is written using Ms. Sunny's feedback	1	08/01/2024	E
80	gather the IGCSE physics club members' feedback	the evaluation of Criterion E is modified, and the extension of the program is written using IIGCSE physics club members' feedback	2	10/01/2024	E