Project Management

CS-370: Software Design and Development

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What is the Executive Champion?

The Executive Champion is "the highest ranking executive who supports the project"

Executive Champion

- In the event a CS-370 team is experiencing problems, I will serve as Executive Champion.

- Please contact me as-soon-as-possible if issues such as:

    - There is conflict on your team.

    - One or more team members are not contributing to the project.

    - The team cannot reach a consensus on a key decision (a stalemate).

Project management charts: task-based versus time-based

- Task-based: illustrates task dependencies and implies a certain prioritization of tasks (based on the dependencies).

    - PERT charts are task-oriented

- Time-based: illustrates a timetable when tasks will be started and completed.

    - GANTT charts are time-oriented

PERT: A task-based chart

- PERT stands for *Program Evaluation and Review Technique*.
- PERT charts organize tasks in a dependency order.
    - Tasks that require no dependencies are listed first.
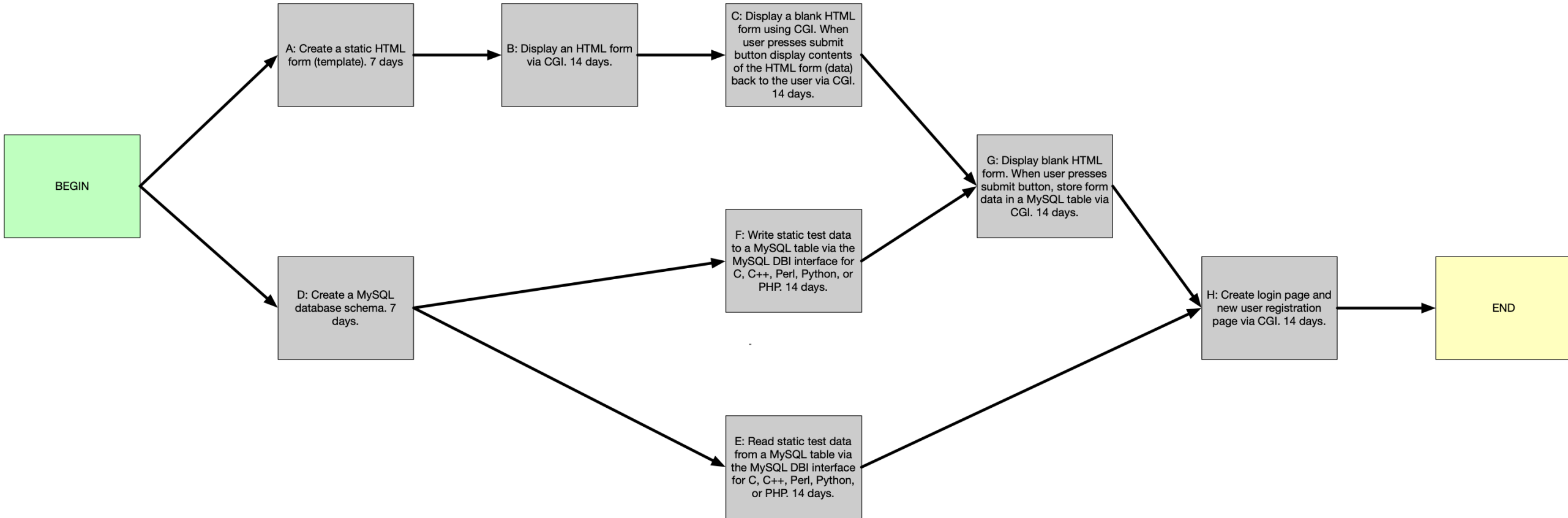   - Tasks with dependencies are listed once the dependencies are completed.

GANTT: A time-based chart

- GANTT chart tasks have projected begin and end dates.
- GANTT charts do not illustrate dependencies between tasks.

Example PERT chart: list of tasks for an auction website

TASK	TIME (DAYS)	PREDECESSOR TASKS
A. Create a static HTML form (template)	7	none
B. Display an HTML form via CGI	14	A
C. Display a blank HTML form using CGI. When user presses submit button display contents of the HTML form (data) back to the user via CGI.	14	B
D. Create a MySQL database schema.	7	none
E. Read static test data from a MySQL table via the MySQL DBI interface for C, C++, Perl, Python, or PHP.	14	D
F. Write static test data to a MySQL table via the MySQL DBI interface for C, C++, Perl, Python, or PHP	14	D
G. Display blank HTML form. When user presses submit button, store form data in a MySQL table via CGI.	14	C, F
H. Create login page and new user registration page via CGI	14	E, G

Example PERT chart: list of tasks for an auction website

BEGIN

A: Create a static HTML form (template). 7 days

B: Display an HTML form via CGI. 14 days.

C: Display a blank HTML form using CGI. When user presses submit button display contents of the HTML form (data) back to the user via CGI. 14 days.

D: Create a MySQL database schema. 7 days.

F: Write static test data to a MySQL table via the MySQL DBI interface for C, C++, Perl, Python, or PHP. 14 days.

E: Read static test data from a MySQL table via the MySQL DBI interface for C, C++, Perl, Python, or PHP. 14 days.

G: Display blank HTML form. When user presses submit button, store form data in a MySQL table via CGI. 14 days.

H: Create login page and new user registration page via CGI. 14 days.

END

Example GANTT chart: list of tasks for an auction website

Auctions Website

Project start: Mon, 9/8/2025
Display week: 1

TASK	ASSIGNED TO	PROGRESS	START	END
Database Development				
Create a MySQL database schema.	Daniel	0%	9/8/25	9/22/25
Read static test data from a MySQL table via the MySQL DBI interface for C++	Daniel	0%	9/23/25	10/7/25
Write static test data to a MySQL table via the MySQL DBI interface in C++	Daniel	0%	10/8/25	10/22/25
Front-End Web Development				
Create a static HTML form (template)	Hayden	0%	9/8/25	9/15/25
Create a static HTML auction form (template)	Hayden	0%	9/16/25	9/23/25
Create a static HTML display auction results (template)	Hayden	0%	9/24/25	10/1/25
Back-end Web Development with CGI				
Display an HTML form via CGI	Olivia	0%	9/16/25	9/21/25
Display a blank HTML form using CGI. When user presses submit button display contents of the HTML form (data) back to the user via CGI.	Olivia	0%	9/22/25	10/6/25

GANTT chart templates (Excel)

- GANTT chart templates are available for import into Microsoft Excel or LibreOffice Calc at

https://create.microsoft.com/en-us/templates/gantt-charts