

Lesson 7: Physical ERDs

Your Turn 11-5

As design decisions are made about the data portion of the Job Status system at Glassmasters, the details of those decisions should be recorded in the repository. When the data elements associated with the data model were first identified and entered into their repository in Lesson 3, we did not concern ourselves with the specific implementation details for these data elements. Now, before we can actually create the database, we need to make final decisions about the characteristics of the attributes: data type, size, null/not null, plus any default values, coding schemes, etc. that should be recorded.

Some organizations have very specific naming conventions that must be followed when finalizing the data base design. For example, it is common to include a prefix in the attribute name that indicates the entity name, such as CUS_, in front of every attribute in a Customer entity. If such standards were in place at Glassmasters, we would apply them now.

As mentioned in Lesson 6, the Job Status system will be created using the MySQL relational database in order to be consistent with other systems in use at Glassmasters. It is now time to record the physical characteristics of the data that will be stored in the new database.

Lesson 7 Tasks:

Task 1: Update the repository entries to reflect the physical design decisions for each entity's attributes.

Open the Job Status ERD diagram. Click on the Clients entity and open the Define Item dialog box. Click on the first attribute in the list (Client ID). That attribute now appears underneath the attribute list and the characteristics of that attribute can be changed. We can change the attribute name, assign a data type from a list of available data types, specify the size of the field, and specify if the attribute is required or not required.

Define Item

Description Locations Links Keys Foreign Keys Triggers Check Constraints

Label: Clients 1 of 7

Entry Type: Entity

Description: This contains data about the client who has commisioned a job

Alias:

Attributes:

Name	Type	Length	Null
Client ID	Undefined		Yes
Company Name	Undefined		Yes
Contact Name	Undefined		Yes
Address	Undefined		Yes
City	Undefined		Yes
State	Undefined		Yes
Zipcode	Undefined		Yes
Contact Phone	Undefined		Yes

Add Client ID Undefined Yes

Notes:

Long Name:

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Dialect... Clear Prior Exit Expand Back Copy Search Criteria

The Attributes field identifies all components of an entity or class. Use the fields below to add or change attributes.

Using the following dialog box as as reference, modify the attribute characteristics for all attributes in the Client entity. Be sure to save all your changes.

Define Item

Description Locations Links Keys Foreign Keys Triggers Check Constraints

Label: Clients 1 of 7

Entry Type: Entity

Description: This contains data about the client who has requested a job

Alias:

Attributes:

Name	Type	Length	Null
Client ID	Char	8	No
Company Name	VarChar	25	Yes
Contact Name	VarChar	25	Yes
Address	VarChar	30	No
City	VarChar	25	No
State	VarChar	2	No
Zipcode	VarChar	10	No
Contact Email	VarChar	30	Yes

Add Contact Phone VarChar 12 No

Notes:

Long Name:

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The Attributes field identifies all components of an entity or class. Use the fields below to add or change attributes.

Using the dialog box that follows, update the attribute characteristics for all attributes in the Jobs entity. Be sure to save all your changes.

Several attributes in the Job Status entity have default values and special meaning. These facts should also be recorded in the repository.



Open the Define Item dialog box for the Job Status entity. Click on the  button to bring up the Attribute list editing window. As shown below, this window allows the physical characteristics of each attribute to be defined, and also allows Values and Meanings to be recorded. Use the following table to record the repository entries for the Job Status entity:

Name	Type	Length	Null	Default	Values & Meaning
Job Status ID	Char	5	No		
Final Design Status	Char	1	Default	0	O - work in the phase is ongoing C - work in the phase is complete
Final Design Pct Complete	Integer 4		Default	0 (zero)	Values range from 0 to 100. As work progresses, the supervisor enters the

					percent of the phase that is complete. Default value is 0 because initially there is no work on the phase.
Fabrication Design Status	Char	1	Default	0	O - work in the phase is ongoing C - work in the phase is complete
Fabrication Design Pct Complete	Integer 4		Default	0 (zero)	Values range from 0 to 100. As work progresses, the supervisor enters the percent of the phase that is complete. Default value is 0 because initially there is no work on the phase.
Finishing Status	Char	1	Default	0	O - work in the phase is ongoing C - work in the phase is complete
Finishing Pct Complete	Integer 4		Default	0 (zero)	Values range from 0 to 100. As work progresses, the supervisor enters the percent of the phase that is complete. Default value is 0 because initially there is no work on the phase.
Date/Time Last Update	Date/Time		Yes		
Initials Last Update	VarChar	3	Yes		

After completing these repository entries, you have completed Lesson 7.

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