

Example

Aggregation of the attribute *grade*

CHASE&BACKCHASE for Q (formulation as s-t tgds):

- CHASE:

$$R(\underbrace{\text{id, module, grade}}_{S_1}) \rightarrow R_{\text{result}}(\underbrace{f(\text{grade})}_{S_2}) \text{ with } f(x) = \mathbf{AVG}(x)$$

- BACKCHASE

$$R_{\text{result}}(\underbrace{\text{avg_grade}}_{S_2}) \rightarrow \exists \text{id}, \text{module}: R(\underbrace{\text{id, module, grade}}_{S_1})$$