## CSE 3241 Checkpoint 2

## Wally Yang

February 25, 2020

$$BOOKS \leftarrow BOOK \bowtie_{Isbn=Book} (\sigma_{Customer=Email}(PURCHASE))$$

$$SALE \leftarrow SALE\_RECORD \bowtie_{Transaction id=Sale} (BOOKS)$$

$$RESULT \leftarrow \pi_{Title,Date}(SALE)$$

$$STOCK(Isbn, Quantity) \leftarrow_{Isbn} \mathcal{F}_{SUM Quantity}(INVENTORY)$$

$$RESULT \leftarrow \pi_{Title,Isbn}(\sigma_{Quantity < 5}(STOCK))$$

$$SALES \leftarrow \sigma_{Author=Pratchett}(PUBLISH)$$

$$\mathit{PRATCHETTS} \leftarrow (\mathit{BOOK} * \mathit{SALES})$$

$$RESULT \leftarrow (\pi_{Name, Title}(PRATCHETTS))$$

$$\mathit{COUNT}(\mathit{Customer}, \ \# \ \mathit{of} \ \mathit{Books}) \leftarrow_{\mathit{Customer}} \mathcal{F}_{\mathit{COUNT} \ \mathit{SALE}}(\mathit{PURCHASE})$$

$$RESULT \leftarrow \sigma_{Customer=Email}(COUNT)$$

$$COUNT(Customer, No) \leftarrow_{Customer} \mathcal{F}_{COUNT \ SALE}(PURCHASE)$$

$$RESULT \leftarrow \mathcal{F}_{MAX\ No}(COUNT)$$