--QUESTION 1A

Which product categories drive the biggest profits?

WITH big\_table AS (SELECT p.product\_category,

sum(s.units\*(p.product\_price-p.product\_cost)) AS total\_profits

FROM products AS p LEFT JOIN sales AS s ON p.product\_id=s.product\_id GROUP BY 1

ORDER BY total\_profits DESC

)

SELECT product\_category,SUM(total\_profits) AS sum\_total\_profits

FROM big\_table GROUP BY 1

ORDER BY sum\_total\_profits DESC

--1B

Is this the same across store locations?

WITH big\_table AS (SELECT p.product\_category,stores.store\_location,

sum(s.units\*(p.product\_price-p.product\_cost)) AS total\_profits

FROM products AS p LEFT JOIN sales AS s ON p.product\_id=s.product\_id

LEFT JOIN stores ON s.store\_id=stores.store\_id GROUP BY 1,2

ORDER BY total\_profits DESC

)

SELECT product\_category,store\_location,total\_profits FROM big\_table

GROUP BY 1,2,3

ORDER BY 2,3 DESC

--QUESTION 2A

How much money is tied up in inventory at the toy stores?

SELECT p.product\_category AS category,SUM(stock\_on\_hand) AS total\_inventory,

SUM(product\_cost\*stock\_on\_hand) AS money\_tied\_up

FROM products AS p INNER JOIN inventory AS i ON p.product\_id=i.product\_id

GROUP BY 1

--How long will inventory/stock last at Toy store

2B

WITH sale\_table AS (SELECT p.product\_category AS category,SUM(s.units) AS sales,

AVG(s.units) AS average\_sales

FROM `Maven\_toys.products` AS p LEFT JOIN `Maven\_toys.sales` AS s ON

p.product\_id=s.product\_id GROUP BY 1),

stock\_table AS (SELECT p.product\_category,SUM(i.stock\_on\_hand) AS inventory

FROM `Maven\_toys.products` AS p LEFT JOIN `Maven\_toys.inventory` AS i ON p.product\_id=i.product\_id

GROUP BY 1),

avg\_table AS(SELECT product\_category,SUM(sales/635) AS daily\_average\_sales

FROM sale\_table LEFT JOIN stock\_table ON sale\_table.category=stock\_table.product\_category GROUP BY 1)

SELECT category,sales,inventory,daily\_average\_sales,(inventory/daily\_average\_sales) AS stock\_length

FROM sale\_table LEFT JOIN stock\_table ON sale\_table.category=stock\_table.product\_category LEFT JOIN avg\_table

ON stock\_table.product\_category=avg\_table.product\_category

GROUP BY 1,2,3,4

3.

Are sales being lost with out of stock products at certain locations?

WITH sale\_table AS (SELECT p.product\_category AS category,st.store\_location AS location,SUM(s.units) AS sales,

AVG(s.units) AS average\_sales

FROM `Maven\_toys.products` AS p LEFT JOIN `Maven\_toys.sales` AS s ON

p.product\_id=s.product\_id LEFT JOIN `Maven\_toys.stores` AS st ON

s.store\_id=st.store\_id

GROUP BY 1,2),

location\_table AS (SELECT p.product\_category,st.store\_location,SUM(s.units/635) AS avg\_daily\_sales

FROM `Maven\_toys.products` AS p LEFT JOIN Maven\_toys.sales AS s ON p.product\_id=s.product\_id

LEFT JOIN `Maven\_toys.stores` AS st ON s.store\_id=st.store\_id

GROUP BY 1,2),

stock\_table AS (SELECT p.product\_category,st.store\_location,SUM(i.stock\_on\_hand) AS inventory

FROM `Maven\_toys.products` AS p LEFT JOIN `Maven\_toys.inventory` AS i ON p.product\_id=i.product\_id

LEFT JOIN `Maven\_toys.stores` AS st ON i.store\_id=st.store\_id

GROUP BY 1,2)

SELECT category,location,sales,inventory,avg\_daily\_sales,(inventory/avg\_daily\_sales) AS stock\_length

FROM sale\_table INNER JOIN stock\_table ON sale\_table.category=stock\_table.product\_category

AND sale\_table.location=stock\_table.store\_location

INNER JOIN location\_table ON location\_table.store\_location=sale\_table.location AND

location\_table.product\_category=stock\_table.product\_category

GROUP BY 1,2,3,4,5,6