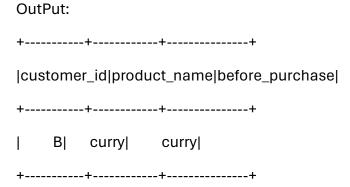
Title: 7 to 10 - sql challenge - spark sql

7. Which item was purchased just before the customer became a member?

### Code:

```
val bfMemberPurchaseDF = salesMembersTableDF.join(menuDataFrame,
salesDataFrame("product_id") === menuDataFrame("product_id")&&
    salesDataFrame("order_date") < membersDataFrame("join_date"))
.groupBy(salesDataFrame("customer_id"),menuDataFrame("product_name"))
    .agg(first("product_name").alias("before_purchase"))
    .orderBy(salesDataFrame("customer_id"))
bfMemberPurchaseDF.show()</pre>
```



-- 8. What is the total items and amount spent for each member before they became a member?

## Code:

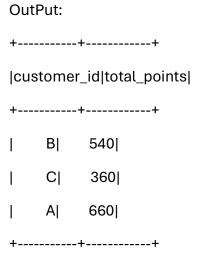
```
val bfCustomeSpendDF = salesMembersTableDF.join(menuDataFrame,
salesDataFrame("product_id") === menuDataFrame("product_id")
&&(salesDataFrame("order_date") < membersDataFrame("join_date")))
   .groupBy(salesDataFrame("customer_id"))
   .agg(sum(menuDataFrame("price")))
bfCustomeSpendDF.show()</pre>
```

# Output: +-----+ |customer\_id|sum(price)|

+-----+ | B| 30| +-----+

-- 9. If each \$1 spent equates to 10 points and sushi has a 2x points multiplier - how many points would each customer have?

Code: PyCham Spark code



-- 10. In the first week after a customer joins the program (including their join date) they earn 2x points on all items, not just sushi - how many points do customer A and B have at the end of January?

## Code:

### OutPut:

+----+
|customer\_id|total\_points|
+----+
| B| 540|
+-----+