

# ABC Game Store Database Project

BA 574-400 Data Management Winter 2021

---

Group 2

Eunjeong Heo, Hyomin Shin,  
Korbin Sorensen, Mingxuan Fu, Youngryun Choi

# *Table of Content*

**A**

## **ABC Game Store**

**Current Situation & Business Problem**

**Presented by Hyomin Shin**

**B**

## **Information Requirements**

**Presented by Eunjeong Heo**

**C**

## **Business Report Design**

**Presented by  
Youngryun Choi,  
Mingxuan Fu,  
Korbin Sorensen**

## ***Introduction: ABC Game Store Business***

### **ABC Current Situation**

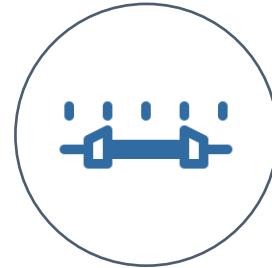
- ABC Game Store Meaning: Has every console games from A, B, C and so on



**Founded  
a year and half  
ago**



**Official partner retailer**



**Wide range of games  
(genre, platform)**



**Increase in  
revenue, customers**

## Introduction: ABC Game Store Business

### ABC Business Problem : Low customer satisfaction in store



Products

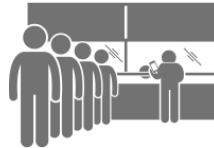


In- store  
customer service

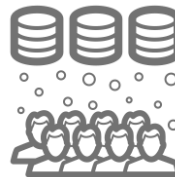


Complaints about employee

- Inconsistent service
- Unfriendly attitude
- No system to rate employees



Long-check out time



No data to respond to customers' complaints

- No customer information
- No purchase, product records related to customers

## ***Introduction: ABC Game Store Business***

### **ABC Business Problem : Current spreadsheet**

Customer	Invoice	Date	Total Amount	Game 1	Price 1	Quantity 1	Game 2	Price 2	Quantity 2
Customer 1	1212	1/23/2021	59.99	The Elder Scrolls V: Skyrim	59.99	1			
Customer 2	1213	1/23/2021	29.99	Rocket League	29.99	1			
Customer 3	1216	1/24/2021	9.99	Puzzles 101	9.99	1			
Customer 4	1214	1/24/2021	89.98	The Elder Scrolls V: Skyrim	59.99	1	Rocket League	29.99	1

**Consist of date, total amount, product name, and price**

## *Information Requirement: ABC Store*

### ABC Store Information Requirement



Problems occurring



Need information requirement  
to solve the problems

*Information Requirement: ABC Store*



Information to Solve the Problems

Information Requirements

“What game products did customers but the most and what is their preferences by gender or age?”

“Which game should the store recommend to customers?”

Outcome



Generate satisfactory answers for customers



Generate fast response for customers

Increase Customer Satisfaction In-Store

## ***Information Requirement: ABC Store***



### **Information to Solve the Problems**

#### **Information Requirements**

**“When is the peak time for customers and how many employees should be deployed in that time?”**

**“Which employees consistently responded to customers with poor performance and vice-versa?”**

**“Who are the low-rating employees that needs training?”**

#### **Outcome**



- Reduce Long Check Out Time**
- Increase Customer Satisfaction**



- Improve Complaints by Employee Rating System**
- Improve Customer Service**





Information Needs

Collect data from following entities to generate information

Customer

Purchase

PurchaseLine

Product

GamePlatform

Genre

ProductLocation

Location

Survey

Employee

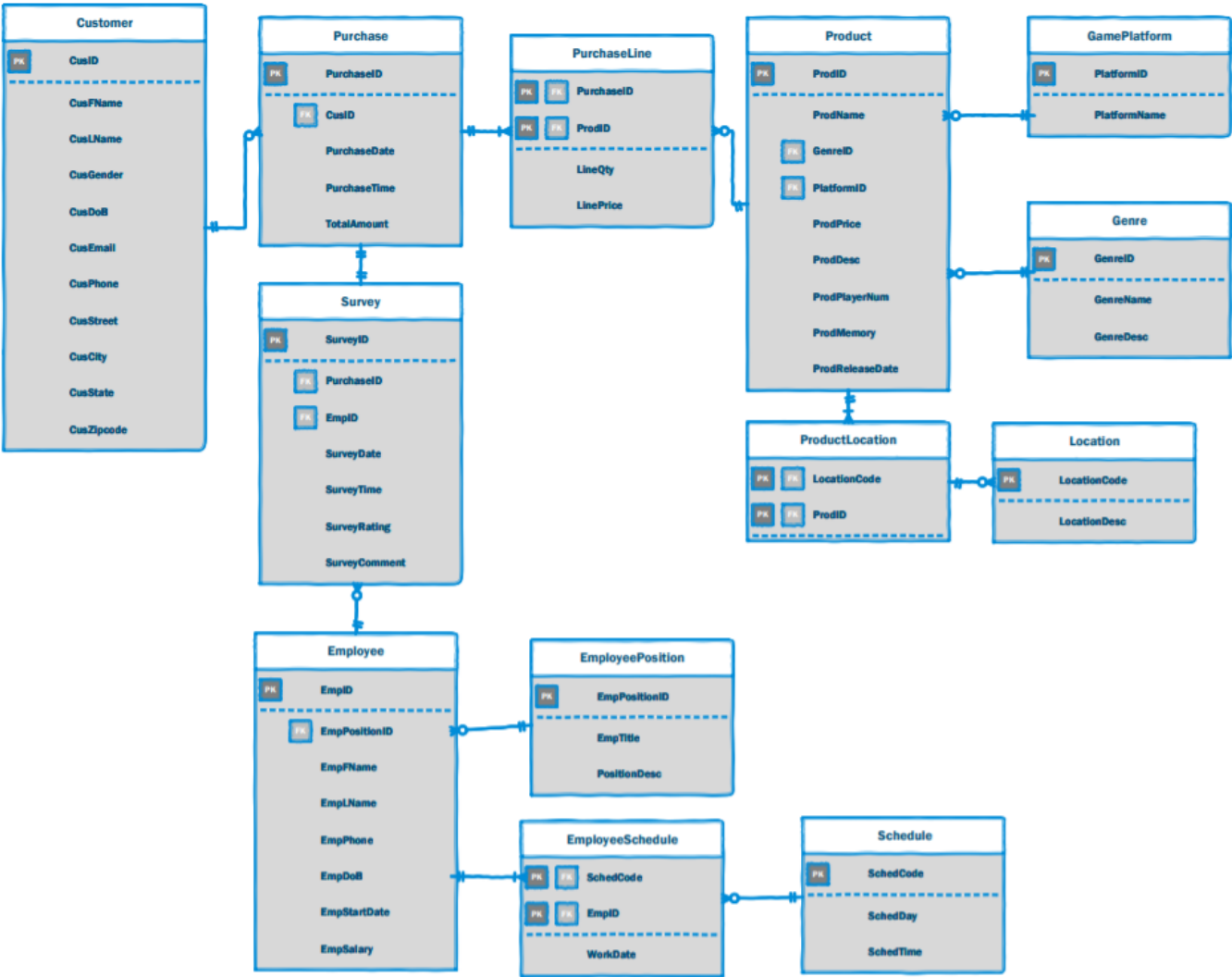
EmployeeSchedule

Schedule

EmployeePosition

# Information Requirement & Design

## ERD Design for ABC Game Store



Business Report Design: Report 1

Business Report 1 - Monthly Sales-Summary Report (For 1/1/2021 Thru 1/31/2021)

ProdID	ProdName	GenreID	Total Num of Purchase	TNP by Male	TNP by Female	TNP Under 30	TNP Over 30
12134	Rocket League	SP	3	2	1	3	0
13456	Rocket League	SP	3	2	1	2	1
1868	College	AD	2	1	1	1	1
1869	College II	AD	2	2	0	1	1
32145	Analyst II	RP	1	0	1	1	0
32146	Analyst III	RP	2	0	2	2	0
42785	Risk	ST	2	2	0	1	1
54674	Animal Crossing	AD	6	0	6	5	1
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
Sum			26	12	14	21	5

## ***Business Report Design: Report 1***

### **Business Report 1 - Required Tables**

Product
<ul style="list-style-type: none"><li>- ProdID</li><li>- ProdName</li><li>- GenreID</li><li>- PlatformID</li><li>- ProdPrice</li><li>- ProdDesc</li><li>- ProdPlayerNum</li><li>- ProdMemory</li><li>- ProdReleaseDate</li></ul>

Purchase
<ul style="list-style-type: none"><li>- PurchaseID</li><li>- CusID</li><li>- PurchaseDate</li><li>- PurchaseTime</li><li>- TotalAmount</li></ul>

PurchaseLine
<ul style="list-style-type: none"><li>- PurchaseID</li><li>- ProdID</li><li>- LineQty</li><li>- LinePrice</li></ul>

Customer
<ul style="list-style-type: none"><li>- CusID</li><li>- CusName</li><li>- CusGender</li><li>- CusDoB</li><li>- CusEmail</li><li>- CusPhone</li><li>- CusStreet</li><li>- CusCity</li><li>- CusState</li><li>- CusZipcode</li></ul>

### **Business Report 1 - Benefits of Monthly Summary Sales Report**



**Easy to decide  
Best -Seller games**



**Great to recommend  
games for customers**



**Better understanding of  
customers**

Business Report 2 - Monthly Employee Review Report

Employee's Name	Num Of Survey	Num Of Comment	TraininRate	Phone
Issac, Thomas	6	4	2.2	5145925332
Wilfred, Miller	1	1	2	9626064994

Employee's Name	Num Of Survey	Num Of Comment	IncentiveRate	Current Salary
Elmer, Matthews	1	0	5	\$14.00
Lorenzo, Allison	1	1	5	\$15.00
Virginia, Hart	1	1	4.5	\$13.25

### **Business Report 2 - Required Tables**

Employee	Survey
<ul style="list-style-type: none"><li>- EmpID</li><li>- EmpPositionID</li><li>- EmpFName</li><li>- EmpLName</li><li>- EmpPhone</li><li>- EmpDoB</li><li>- EmpStartDate</li><li>- EmpSalary</li></ul>	<ul style="list-style-type: none"><li>- SurveyID</li><li>- PurchaseID</li><li>- EmpID</li><li>- SurveyDate</li><li>- SurveyTime</li><li>- SurveyRating</li><li>- SurveyComment</li></ul>

### **Business Report 2 - Benefits of Monthly Employee Review Report**



**Easy to review employees' work and react based on different purpose**



**Able to improve the service quality**



**Able to respond to customers' feedback**



Business Report 3 - Daily Transaction and Peak Time Report

Code	Time	Number of Transactions	Number of Employees Working
SA01	9:00 - 11:00	1	4
SA02	11:00 - 13:00	4	1
SA03	13:00 - 16:00	0	1
SA04	16:00 - 19:00	0	1

**Business Report 3 - Required Tables**

Purchase	Survey
<ul style="list-style-type: none"><li>- PurchaseID</li><li>- CusID</li><li>- PurchaseDate</li><li>- PurchaseTime</li><li>- TotalAmount</li></ul>	<ul style="list-style-type: none"><li>- SurveyID</li><li>- PurchaseID</li><li>- EmplID</li><li>- SurveyDate</li><li>- SurveyTime</li><li>- SurveyRating</li><li>- SurveyComment</li></ul>

### **Business Report 3 - Daily Transaction and Peak Time Report**



**Identify the shift and  
make decision whether to schedule  
more employees or not**



**Identify unusual patterns**

## *Conclusion*



**Better customer service**



**140%**

**Increase Revenue**  
(Source: Harvard Business Review)

# *Reference*

Slide 1 (Image) <https://www.dbta.com/Editorial/Trends-and-Applications/Essential-Tips-on-SQL-Server-Database-Performance-108768.aspx>

\* All icons used in the presentation is 'Creative Commons license' which is public copyright licenses.

*Thank You*

*Group 2*