



# Main Quest 2 템플릿

## 평가 항목

채점 기준	설명
1. 추천 시스템의 창의성과 복잡성	5가지의 추천 시스템 아이디어가 모두 독창적인가?
2. SQL 구현의 정확성 및 효율성	SQL 쿼리가 데이터의 목적에 맞게 설계되었는가?
3. 보고서 구성 및 설명력	논리적으로 추천 시스템 구현 로직을 설명했는가?

## 추천시스템 1

### 1. 추천시스템의 이름

- 할인율이 높은 인기 제품 추천

### 2. 추천시스템의 테마 및 목적

- 아마존 홈페이지 배너에 활용가능한 높은 할인율을 가진 인기 제품 추천하여 고객 유도하기

### 3. 구현 로직 (코드, 쿼리 및 구조도)

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```
SELECT DISTINCT product_name,
                category,
                actual_price,
                discount_percentage,
                discounted_price,
                rating, product_link
FROM `modulabs.amazon2`,
UNNEST(SPLIT(category, '|')) AS category_value
WHERE discount_percentage >= 0.8 AND CAST(rating AS FLOAT64) >= 4.5
ORDER BY CAST(rating AS FLOAT64) DESC , discount_percentage DESC
```

### 4. 결과

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쿼리 결과

결과 저장

다음에서 열기

작업 정보

결과

자르

JSON

실행 세부정보

실행 그래프

일	product_name	category	actual_price	discount_percentage	discounted_price	rating	product_link
1	Synwire LG to USB Cable for Fast Charging Compatible with Phone 5/ 5C/ 5S/ 6/ 6S/ 7/ 8/ X/ XR/ XS Max/ 11/ 12/ 13	Computers&Accessories(Accessories/Cables&Accessories/Cables/USB Cables	1999.0	0.8	399.0	5.0	https://www.amazon.in/Synwire-Cable-Charging-Compatible-Devices/dp/B0BP7XLX48/ref=sr_1_1947
2	Aquadpure Copper + Mineral RO+UV+UF 10 to 12 Liter RO + UV + TDS ADJUSTER Water Purifier with Copper Charge	Home&Kitchen(Kitchen&Home Appliances/Water Purifiers&Accessories/Water Filters&Purifiers	24999.0	0.8	4999.0	4.6	https://www.amazon.in/Aquadpure-Copper-ADJUSTER-Purifier-Technology/dp/B0BJ966M5K/ref=sr_1_3087
3	ELV Aluminum Adjustable Mobile Phone Foldable Tabletop Stand Dock Mount for All Smartphones, Tabs, Kindle, iPad (Black)	Electronics/Mobiles&Accessori...	1499.0	0.82	269.0	4.5	https://www.amazon.in/Aluminum-Adjustable-Mobile-Foldable-Smartphones/dp/B07Q4QV1DL/ref=sr_1_1497
4	Cotbolt Silicone Protective Case Cover for LG an MR21GA Magic Remote Shockproof for LG Smart TV Remote 2021 Protective	Electronics/HomeTheater,TV&V...	1999.0	0.8	399.0	4.5	https://www.amazon.in/Cotbolt-Silicone-Protective-Shockproof-Waterproof/dp/B09TT6BFIX/ref=sr_1_1777

5. 참고자료

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추천시스템 2

1. 추천시스템의 이름

- 베스트 리뷰어 챌린지

2. 추천시스템의 테마 및 목적

- “삼성제품을 구매한 고객 중 50자이상의 리뷰를 작성한 사람 중 베스트 리뷰어 찾기”  
고객의 적극적인 참여를 유도해 사용자 생성 콘텐츠를 통해 특정 브랜드 제품 추천하기

3. 구현 로직 (코드, 쿼리 및 구조도)

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```
SELECT DISTINCT review_content, product_name, user_name
FROM `modulabs.amazon2`
WHERE product_name LIKE "%Samsung%"
AND LENGTH(review_content) >= 50
```

4. 결과

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쿼리 결과

작업 정보	결과	자표	JSON	실링 세부정보	실링 그래프
행	review_content	product_name	user_name		
1	I had an LG 27" monitor and broke it twice while wiping with cloth.. It couldnt even take my ring figure pressure. First time I	Samsung 24-inch(60.46cm) FHD Monitor, IPS, 75 Hz, Bezel Less Design, AMD FreeSync, Flicker Free,	Srikanth,Sameer,Alexander,Siddhant Pawar,Deepak Kumar Behura,thru,Uday Ajay Kumar Pai		
2	Its a good deal to get the SD card in this price, but it was even less in Reliance digital. But as I needed in 1 day its fine to	Samsung EVO Plus 128GB microSDXC UHS-I U3 130MB/s Full HD & 4K UHD Memory Card with Adapter (MB-MC128KA), Blue	Soumendra Pattanayak,Kumar.katukuri, RAJULAPATI MARUTHI VARA PRASAD RAQ,Souvik,Mahendran		
3	Its a good deal to get the SD card in this price, but it was even less in Reliance digital. But as I needed in 1 day its fine to	Samsung EVO Plus 64GB microSDXC UHS-I U1 130MB/s Full HD & 4K UHD Memory Card with Adapter (MB-MC64KA), Blue	Soumendra Pattanayak,Kumar.katukuri, RAJULAPATI MARUTHI VARA PRASAD RAQ,Souvik,Mahendran		
4	I ordered 128GB but got 119GB,Its a good deal to get the SD card in this price, but it was even less in Reliance digital. But as I	Samsung EVO Plus 128GB microSDXC UHS-I U3 130MB/s Full HD & 4K UHD Memory Card with Adapter (MB-MC128KA), Blue	Rashmi Joshi,Soumendra Pattanayak,Kumar.katukuri, RAJULAPATI MARUTHI VARA PRASAD RAQ,Souvik,Mahendran		

페이지당 결과 수: 50 1 - 50 (전체 73행) |< > |

5. 참고자료

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추천시스템 3

1. 추천시스템의 이름

- 고객별 가장 많이 소비한 브랜드 중 평점 4.5이상의 제품들 추천하기

2. 추천시스템의 테마 및 목적

- 고객별 가장 많이 소비한 브랜드 중 평점 4.5이상의 제품들 추천하기

3. 구현 로직 (코드, 쿼리 및 구조도)

```
WITH customer_top_brand AS (  
  SELECT  
    user_id,  
    SPLIT(product_name, ' ')[OFFSET(0)] AS brand,  
    COUNT(*) as purchase_count,  
    ROW_NUMBER() OVER (PARTITION BY user_id ORDER BY COUNT(*) DESC) as brand_rank  
  FROM `modulabs.amazon2`  
  GROUP BY user_id, SPLIT(product_name, ' ')[OFFSET(0)]  
)  
SELECT  
  ctb.user_id,  
  ctb.brand,  
  a.product_name,  
  a.rating,  
  a.discounted_price  
FROM customer_top_brand ctb  
JOIN `modulabs.amazon2` a ON SPLIT(a.product_name, ' ')[OFFSET(0)] = ctb.brand  
WHERE ctb.brand_rank = 1  
  AND a.rating IS NOT NULL  
  AND SAFE_CAST(a.rating AS FLOAT64) IS NOT NULL  
  AND SAFE_CAST(a.rating AS FLOAT64) >= 4.5  
ORDER BY ctb.user_id, SAFE_CAST(a.rating AS FLOAT64) DESC
```

4. 결과

쿼리 결과

작업 정보	결과	자르	JSON	실행 세부정보	실행 그래프
행	user_id	brand	product_name	rating	discounted_price
1	AE2JTMRTU0IVIZWS2W D6TMNTU4QAF4QXC832 VC2DVE703DGFNQVFFNQ AGAFYHMPFGVPR3MOS4 QAZLAWPW3AAGNNWLEF	Belkin	Belkin Essential Series 4- Socket Surge Protector Universal Socket with 5ft Heavy Duty Cable (Grey)	4.5	1289.0
2	AE2JTMRTU0IVIZWS2W D6TMNTU4QAF4QXC832 VC2DVE703DGFNQVFFNQ AGAFYHMPFGVPR3MOS4 QAZLAWPW3AAGNNWLEF	Belkin	Belkin USB C to USB-C Fast Charging Type C Cable, 60W PD, 3.3 feet (1 meter) for Laptop, Personal Computer, Tablet,	4.5	599.0
3	AE2JTMRTU0IVIZWS2W D6TMNTU4QAF4QXC832 VC2DVE703DGFNQVFFNQ AGAFYHMPFGVPR3MOS4 QAZLAWPW3AAGNNWLEF	Belkin	Belkin USB C to USB-C Fast Charging Type C Cable, 60W PD, 3.3 feet (1 meter) for Laptop, Personal Computer, Tablet,	4.5	599.0
4	AE2TJSJXRS5BX6X7WFS7 HOFJKCOQAEQFTT257RD VYEGOX5RBADQ4VY2QJAH PCHA3K3ZQDEKCNZJ56	Lapster	Lapster 65W compatible for OnePlus Dash Warp Charge Cable , type c to c cable fast charging Data	4.5	199.0

5. 참고자료

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추천시스템 4

1. 추천시스템의 이름

- 카테고리 별로 할인을 높은 순으로 보여주기

## 2. 추천시스템의 테마 및 목적

고객이 필요한 카테고리에서 할인을 높은순으로 저렴하게 구매하기 위한 추천

## 3. 구현 로직 (코드, 쿼리 및 구조도)

- 

```
SELECT category, product_id, product_name, discounted_price, discount_percentage
FROM `modulabs.amazon2`
GROUP BY category, product_id, product_name, discounted_price, discount_percentage
ORDER BY category, discount_percentage DESC
```

## 4. 결과

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쿼리 결과						
작업 정보		자트	JSON	실행 세부정보	실행 그래프	
행	category	product_id	product_name	discounted_price	discount_percentage	
1	Car&Motorbike(CarAccessories)InteriorAccessories(AirPurifiers&Ionizers	B0912WJ87V	Reffair AX30 [MAX] Portable Air Purifier for Car, Home & Office   Smart Ionizer Function   H13 Grade True HEPA Filter	239.0	0.42	
2	Computers&Accessories(Accessories&Peripherals(Adapters USBtoUSBAdapters	B097C564GC	rtts [2 Pack] Mini USB C Type C Adapter Plug, Type C Female to USB A Male Charger Charging Cable Adapter Converter	294.0	0.94	
3	Computers&Accessories(Accessories&Peripherals(Adapters USBtoUSBAdapters	B094DQWV98	Kanget [2 Pack] Type C Female to USB A Male Charger   Charging Cable Adapter Converter compatible for iPhone 14,	149.0	0.63	
4	Computers&Accessories(Accessories&Peripherals(Audio&VideoAccessories)PCHeadsets	B009LJ2BXA	Hp Wired On Ear Headphones With Mic With 3.5 Mm Drivers, In-Built Noise Cancelling, Foldable	649.0	0.35	

## 5. 참고자료

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## 추천시스템 5

### 1. 추천시스템의 이름

- 고객이 자주 구매하는 category의 제품을 우선적으로 추천

### 2. 추천시스템의 테마 및 목적

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### 3. 구현 로직 (코드, 쿼리 및 구조도)

- 

```
WITH customer_category_purchases AS (
  SELECT
    user_id,
```

```

        category,
        COUNT(*) as purchase_count,
        ROW_NUMBER() OVER (PARTITION BY user_id ORDER BY COUNT(*) DESC) as category_rank
    FROM `modulabs.amazon2`
    GROUP BY user_id, category
)
SELECT
    user_id,
    category,
    purchase_count
FROM customer_category_purchases
WHERE category_rank = 1
ORDER BY purchase_count DESC, user_id

```

#### 4. 결과

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##### 쿼리 결과

작업 정보	결과	차트	JSON	실행 세부정보	실행 그래프
행	user_id ▾		category ▾		purchase_count ▾
1	AHIKJUDTVJ4T6DV6IUGFY Z5LXMPA,AE55KTFVNXFY D5FPYWP20UPEYNPQ,AE BWA5I4QFCA3P30BEPME LBGN4GQ,AHMGAC6QM62		Computers&Accessories Acce ssories&Peripherals Cables&A ccessories Cables USBCables		10
2	AG3D6O4STAQKAY2UVGE UV46KN35Q,AHMY5CWJM MK5BJRBBSNLYT3ONILA, AHCTC6ULH4XB6YHDY6P CH2R772LQ,AGYHHIERNX		Computers&Accessories Acce ssories&Peripherals Cables&A ccessories Cables USBCables		8
3	AGAELRYPMTG5SADZPDY B343EASAA,AGFN4JODOM 2NTFCJQOHD BQLVDJTQ,A G7EZVSA XIVGMNDLSA55 K7URQCJA,AGGF75HIEMB		Electronics Mobiles&Accesso ries Smartphones&BasicMobil es Smartphones		8
4	AECPFYQVRUWC3KGNLJI OREFP5LQ,AGYYVPDD7YG 7FYNBXNGXZJT525AQ,AH ONIZU3ICIEHQIGQ6R2VFR SBXOQ,AFPHD2CRPDZMW		Computers&Accessories Acce ssories&Peripherals Cables&A ccessories Cables USBCables		7

#### 5. 참고자료

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#### 회고

조금 더 다양하게 생각해보고 싶은데 SQL을 잘몰라서 다양해하게 할 수록 오류가 많이 났습니다