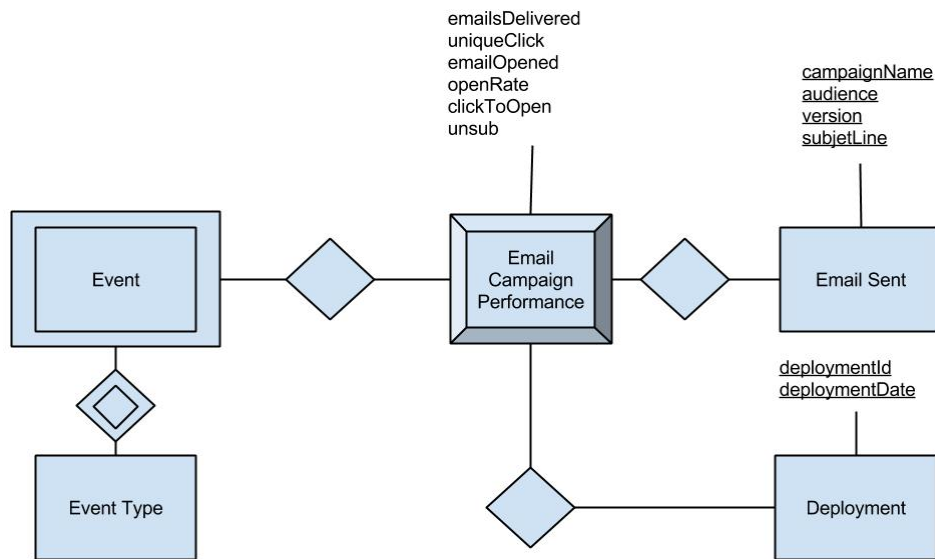


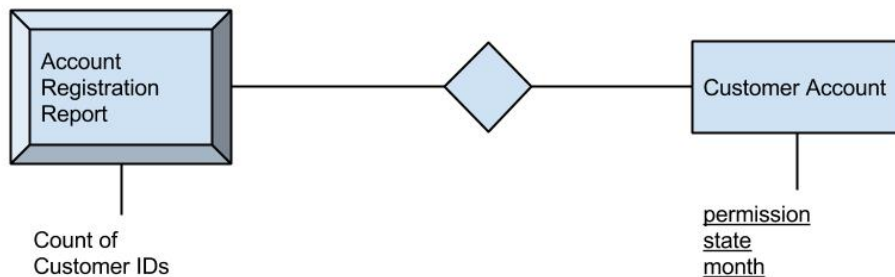
Andrew Wang, Esha Joshi, Delaney Giacalone, Nick Verbos
Professor Dekhtyar
CPE 366-01
May 18, 2015

Lab6 - Data Warehouse Design/Construction

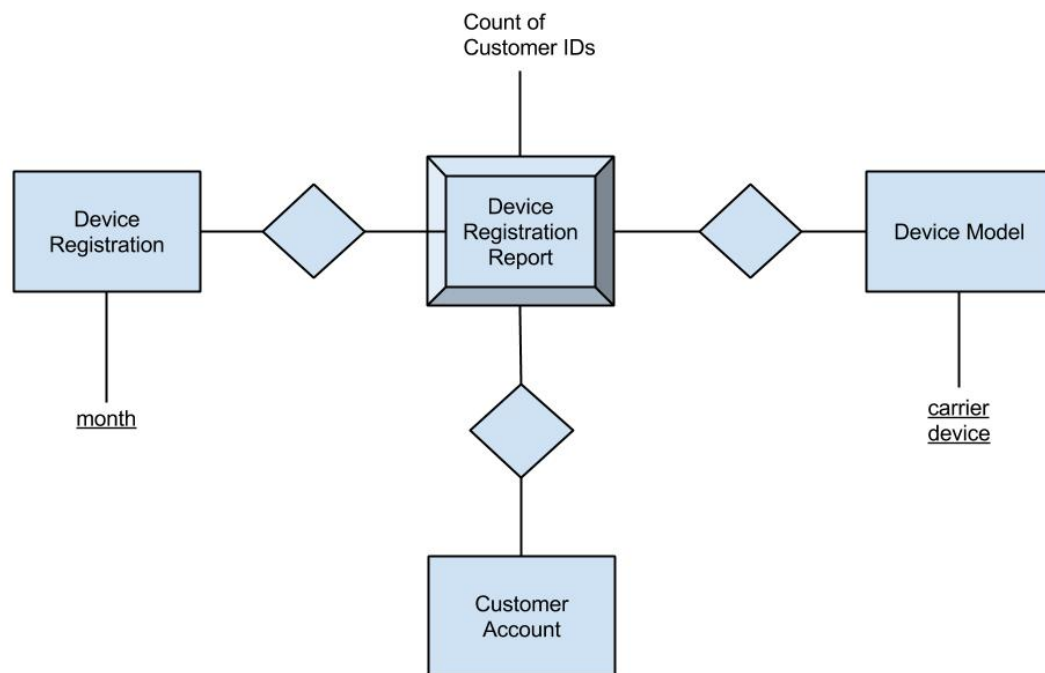
Email Campaign Performance



Account Registration Report



Device Registration Report



List of Attributes

Email Campaign Performance List of Attributes

CampaignName

Audience

Version

SubjectLine

DeploymentDate

UniqueEmailsDelivered

UniqueEmailsOpened

UniqueClickers

OpenRate

ClickRate

ClickToOpenRate

UnsubRate

Primary Key: CampaignName, Audience, Version, SubjectLine, DeploymentDate

Account Registration List of Attributes

State

Month

Permission

CustomerIDCount

Primary Key: State, Month, Permission

Device Registration List of Attributes

Carrier

Month

Device

CustomerIDCount

Primary Key: Carrier, Month, Device

Relational Model

EmailCampaignPerformance(CampaignName, CampaignName, Audience, Version, SubjectLine, DeploymentDate, UniqueEmailsDelivered, UniqueEmailsOpened, UniqueClickers, OpenRate, ClickRate, ClickToOpenRate, UnsubRate)

AccountRegistration(State, Month, Permission, CustomerIDCount)

DeviceRegistration(Carrier, Month, Device, CustomerIDCount)

Denormalization Notes

For this version of our data warehouse design, we left our data warehouse normalized.

SQL Templates

```
CREATE TABLE EmailCampaignPerformance (  
    CampaignName VARCHAR(100),  
    Audience VARCHAR(100),  
    Version VARCHAR(50),  
    SubjectLine VARCHAR(100),  
    DeploymentDate DATE,  
    UniqueEmailDelievered INT, (Sum of unique emails sent - sum of bounced emails)  
    UniqueEmailsOpened INT, (Sum of unqiue emails opened)  
    UniqueClickers INT, (Sum of unique customers who opened this email)  
    OpenRate FLOAT, (Unique Emails Opened/Unique Emailed Delivered)  
    ClickRate FLOAT, (unique click/ unique deliver)  
    ClickToOpenRate FLOAT, (unique click/ unique open)  
    UnsubRate FLOAT,  
    PRIMARY KEY(CampaignName, Audience, Version, SubjectLine, DeploymentDate)  
);
```

```
CREATE TABLE AccountRegistrationReport AS (  
    SELECT CustomerAccount.state, MONTHNAME(CustomerAccount.regDate),  
        CustomerAccount.permission, COUNT(*) as CustomerIDCount  
    FROM CustomerAccount  
    GROUP BY CustomerAccount.state, MONTHNAME(CustomerAccount.regDate),  
        CustomerAccount.permission  
);
```

```
CREATE TABLE DeviceRegistrationReport AS (  
    SELECT DeviceModel.carrier, DeviceModel.device_model,  
        MONTHNAME(DeviceRegistration.registration_date), COUNT(*)  
    FROM DeviceRegistration, DeviceModel, CustomerAccount, IsRegisteredVia  
    WHERE DeviceRegistration.fk_device_model_id = DeviceModel.device_model and  
        DeviceRegistration.registration_id = IsRegisteredVia.fk_registration_id AND  
        CustomerAccount.customer_id = IsRegisteredVia.fk_customer_id  
    GROUP BY DeviceModel.carrier, DeviceModel.device_model,  
        MONTHNAME(DeviceRegistration.registration_date)  
);
```