IS 6420 DB Project
CompanyName Data Model

Member Name1
Member Name2
Member Name3
Semester: Fall of 2012

Agenda

- Business Description
- Data Requirements
- Entity Relationship Diagram
- Relational Model
- Physical Model
- Top 5 Queries
- Demo

Business Description

CompanyName is a Utah based skin care retailer and the parent company to nationally recognized e-retail sites. Part of the Inc 500 in 2010, CompanyName focuses the majority of its labor and efforts on CompanyName.com, the company's leading site.

Data Requirements (Entities)

- Person (Blogger, Giveaway Winner, Employee)
  - ID, Name (first, last, nickname), Address (Street, City, State, Country, Zip), Email, Phone number

    *blogger also has a status
- Website
  - website id, rank, URL, type, follower count
- Link
  - link URL, link type, target type, brand, product

Data Requirements (Relationships)

- Person is a SUPERTYPE with 3 subtypes:
  - Employee
  - Blogger
  - Giveaway Winner

*Subtypes may OVERLAP

- An Employee SPONSORS a Blogger and records:
  - Brand Pairing Name (up to 4)
  - Date

*One Employee can sponsor MANY Bloggers

Data Requirements (Relationships) cont...

- An Employee also PAYS a Blogger:
  - Code, Date, Amount

*One Employee can pay MANY Bloggers

- A Blogger HOSTS a Giveaway and records:
  - Topic, Code, Date, Amount

*One Blogger may host MANY giveaways...but each giveaway only has ONE winner

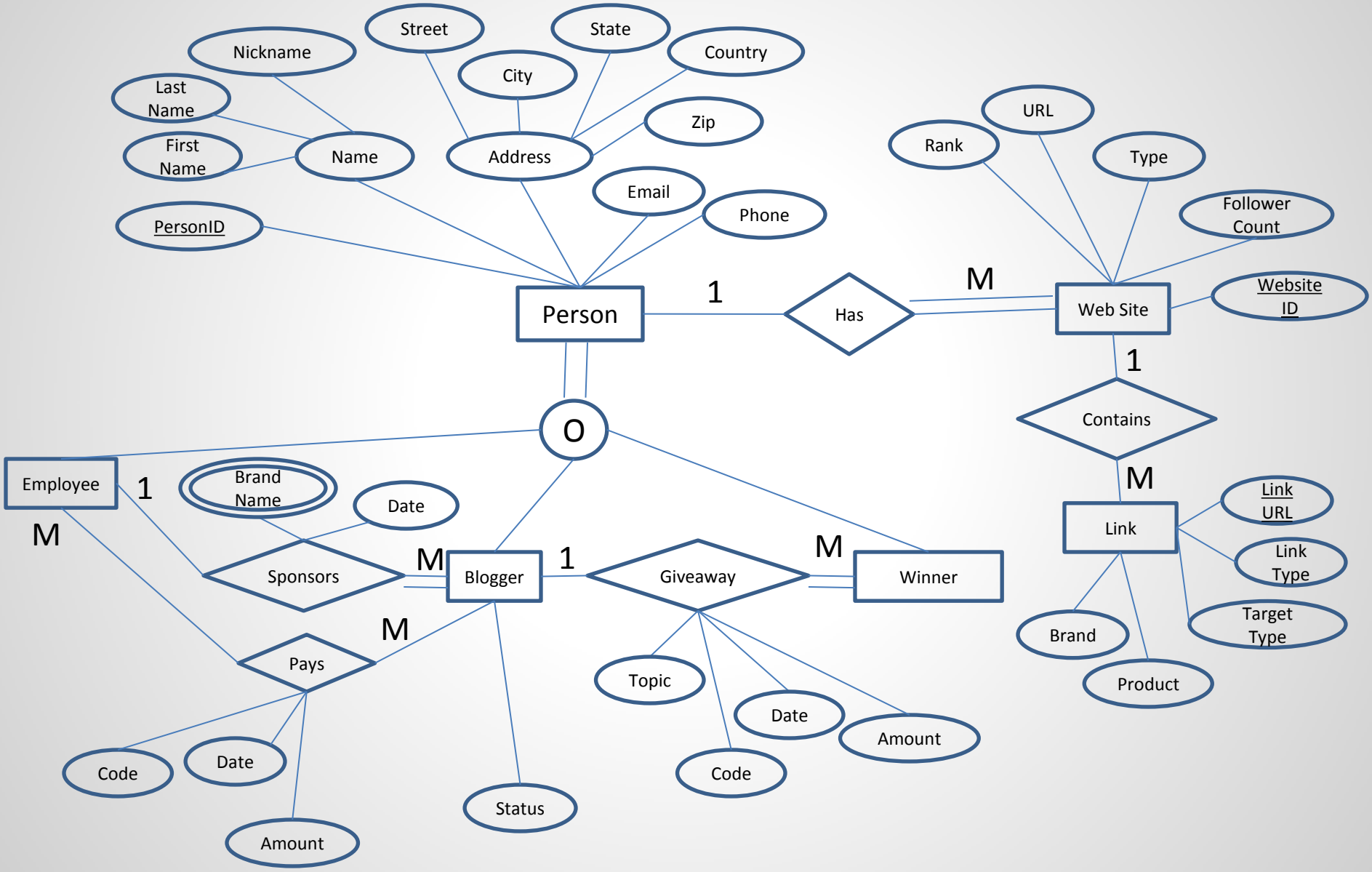
- A Person also HAS a website

*One Person may have MANY websites

- This website CONTAINS links

*One Website may have MANY links

Entity Relationship Diagram



Relational Model

Person (PersonID,FName,LName,NName,Email,Phone,Street,City,State,Zip,Country)

Employee (EPersonID)

Foreign Key (EPersonID) References Person (PersonID)

Blogger (BPersonID,Status,SponsorID,SponsorDate)

Foreign Key (SponsorID) References Employee (EPersonID)

BloggerPairing (BPersonID,Brand)

Foreign Key (BPersonID) References Person (PersonID)

Winner (WPersonID,GiveawayCode,GiveawayTopic,GiveawayDate,GiveawayAmount)

Foreign Key (WPersonID) References Person (PersonID)

Website (WebSiteID,URL,Type,OwnerID,FollowerCount,KloutScore,Rank)

Foreign Key (OwnerID) References Person (PersonID)

Link (LinkURL,LinkType,TargetType,Brand,Product,WebSiteID)

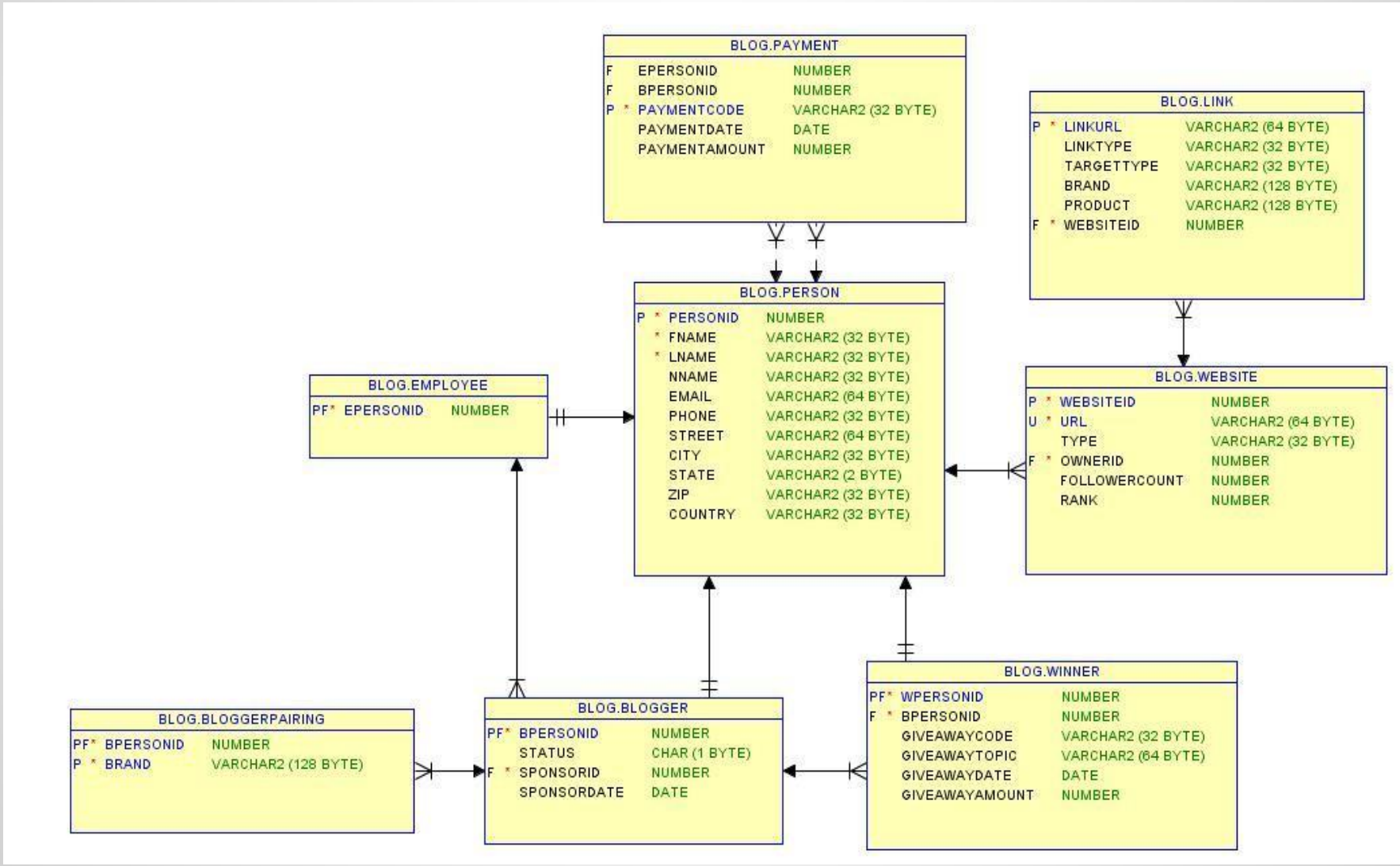
Foreign Key (WebSiteID) References WebSite (WebSiteID)

Payment (PaymentCode,EPersonID,BPersonID,Date,Amount)

Foreign Key (EPersonID) References Person (PersonID)

Foreign Key (BPersonID) References Person (PersonID)

Physical Model



Top 5 Queries

1. What is the total reach of Bloggers with brands?
2. What state do the majority of Bloggers live in?
3. What is the average payment made to Bloggers?
4. How many Bloggers were sponsored each month?
5. How many web links are there for each product?

Dynamic Views

- These Dynamic Views will simplify our queries for types of Persons
- Connects SubTypes to SuperType
  - v_emp
    - Join Employee with Person
  - v_blogger
    - Join Blogger with Person
  - v_winner
    - Join Winner with Person

Query 1

- What is the total reach of Bloggers with brands?
- SQL

```
/* Count Bloggers with Brands */
select brand,
        count(bpersonid) as cnt
 from bloggerpairing
group by brand
 order by brand;
```

Query 2

- What state do the majority of Bloggers live in?
- SQL

```
/* Count Bloggers by State */
select state,
        count(bpersonid) as CNT
  from v_blogger
group by state
 order by CNT desc;
```

Query 3

- What is the average payment made to Bloggers?
- SQL

```
/* Average Blogger Payment Amount */
select round(avg(paymentamount)) as AvgAmount
  from payment;
```

Oracle "Round" Function rounds decimal number into whole number

Query 4

- How many Bloggers were sponsored each month?
- SQL

```
/* Sponsorship by Month Trend */
select TO_CHAR(sponsordate, 'YYYY-MM') as YearMonth,
        count(*) as Sponsorships
  from blogger
group by TO_CHAR(sponsordate, 'YYYY-MM')
 order by YearMonth;
```

Query 5

- How many web links (ads) are there for each product?
- SQL

```
/* Count of Links Group By Product */
select product,
        count(*) as LinkCount
  from link
group by product
 order by LinkCount desc;
```

Report Views

- The Top 5 Queries may be turned into Views for future use.
  - v_CountByBrand
  - v_BloggersByState
  - v_AvgPayment
  - v_SponsorshipTrend
  - v_LinksPerProduct
- Future use may be simplified to:
  - Select * from v_name;

Query Demo Info

- Derived Fake Data by simulating Real Data
  - Used tool called generatedata.com
- Run SQL statements in SQL Developer Tool
- SQL Developer is a FREE GUI tool from Oracle.
  - Strongly encourage you to try it!

Questions?

THANK YOU