Olympics Database

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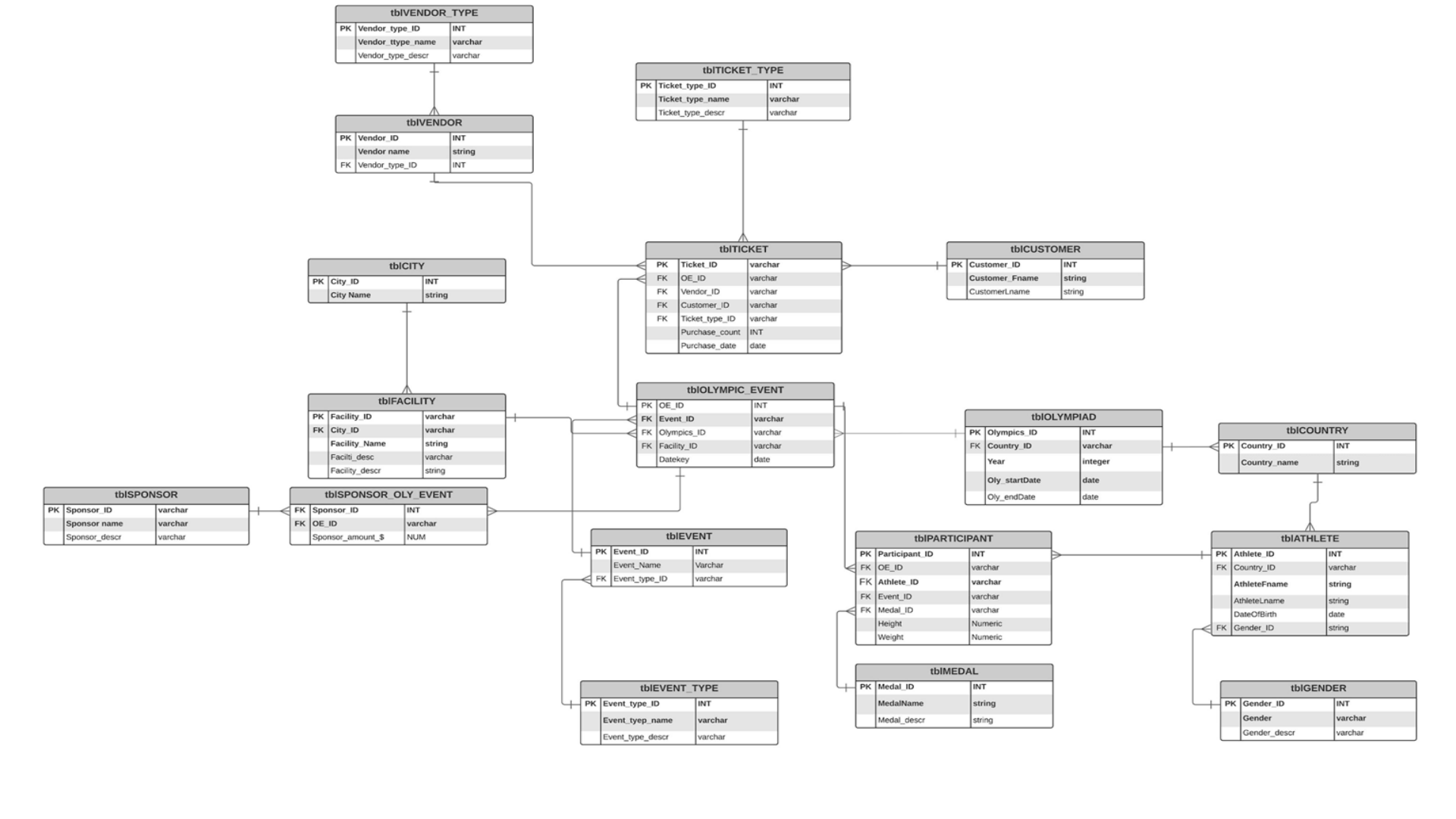
Problem statement

- Olympics = Mecca of sports
  - 10,000 participants
  - 2012 London Olympics Record viewership
- Marketing revenues:
  - 2012 : $8 billion
  - 2016 : $7.7 billion
  - 2021: Japan committed $13.7 billion
- Organizing the sport extravaganza :
  - Management of huge data
  - Statistics of every sport - popularity, growth
  - Partnering sponsors with appropriate sports

ERD

- **Entity Relationship Diagram**


tblVENDOR_TYPE
PK Vendor_type_ID INT
Vendor_ttype_name varchar
Vendor_type_descr varchar
tblTICKET_TYPE
PK Ticket_type_ID INT
Ticket_type_name varchar
Ticket_type_descr varchar
tblVENDOR
PK Vendor_ID INT
Vendor name string
FK Vendor_type_ID INT
tblCITY
PK City_ID INT
City Name string
tblTICKET
PK Ticket_ID varchar
FK OE_ID varchar
FK Vendor_ID varchar
FK Customer_ID varchar
FK Ticket_type_ID varchar
Purchase_count INT
Purchase_date date
tblCUSTOMER
PK Customer_ID INT
Customer_Fname string
CustomerLname string
tblFACILITY
PK Facility_ID varchar
FK City_ID varchar
Facility_Name string
Facilti_desc varchar
Facility_descr string
tblOLYMPIC_EVENT
PK OE_ID INT
FK Event_ID varchar
FK Olympics_ID varchar
FK Facility_ID varchar
Datekey date
tblOLYMPIAD
PK Olympics_ID INT
FK Country_ID varchar
Year integer
Oly_startDate date
Oly_endDate date
tblCOUNTRY
PK Country_ID INT
Country_name string
tblSPONSOR
PK Sponsor_ID varchar
Sponsor name varchar
Sponsor_descr varchar
tblSPONSOR_OLY_EVENT
FK Sponsor_ID INT
FK OE_ID varchar
Sponsor_amount_$ NUM
tblEVENT
PK Event_ID INT
Event_Name Varchar
FK Event_type_ID varchar
tblPARTICIPANT
PK Participant_ID INT
FK OE_ID varchar
FK Athlete_ID varchar
FK Event_ID varchar
FK Medal_ID varchar
Height Numeric
Weight Numeric
tblATHLETE
PK Athlete_ID INT
FK Country_ID varchar
AthleteFname string
AthleteLname string
DateOfBirth date
FK Gender_ID string
tblEVENT_TYPE
PK Event_type_ID INT
Event_tyep_name varchar
Event_type_descr varchar
tblMEDAL
PK Medal_ID INT
MedalName string
Medal_descr string
tblGENDER
PK Gender_ID INT
Gender varchar
Gender_descr varchar

Tables populating

- 9 Look-up tables : Medal, Country, Customer
- 9 Transactional tables : Olympic, Participant, Olympic event
- INSERT INTO lookup tables : stored procedures & source rows from PEEPS/University
- INSERT INTO transactional tables : nested stored procedu with getID()

Business rules and computed columns

- Number of tickets one customer can buy {limit 10}
- Age of a participant {21 and above only}

- Number of tickets - grouped by ticket type: Digital/Physical
- Count of times a customer made a purchase; not the number of tickets bought

Things we can improve

Current design

- Individual events only
- Stadiums can host one event

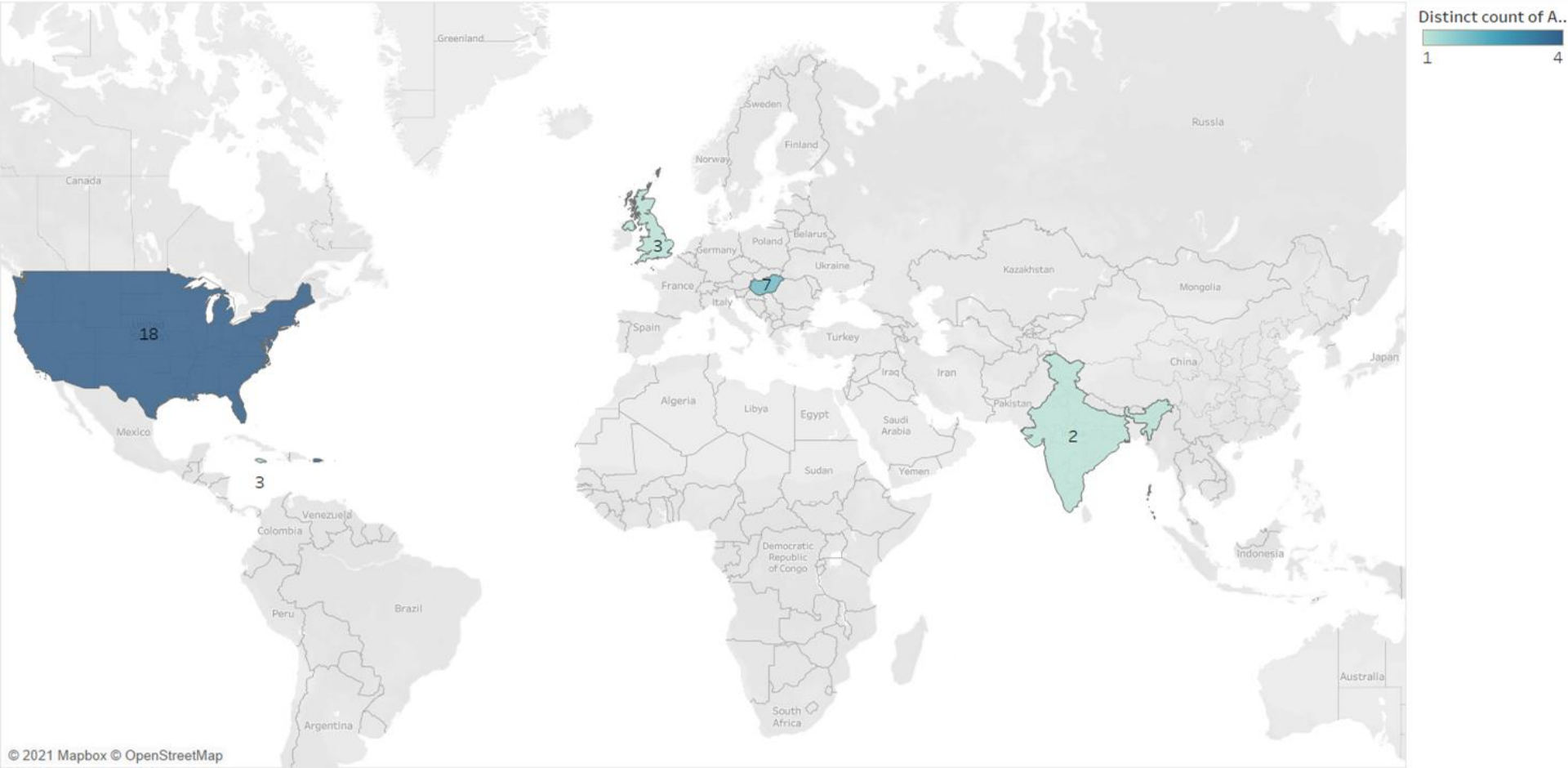
Modifications

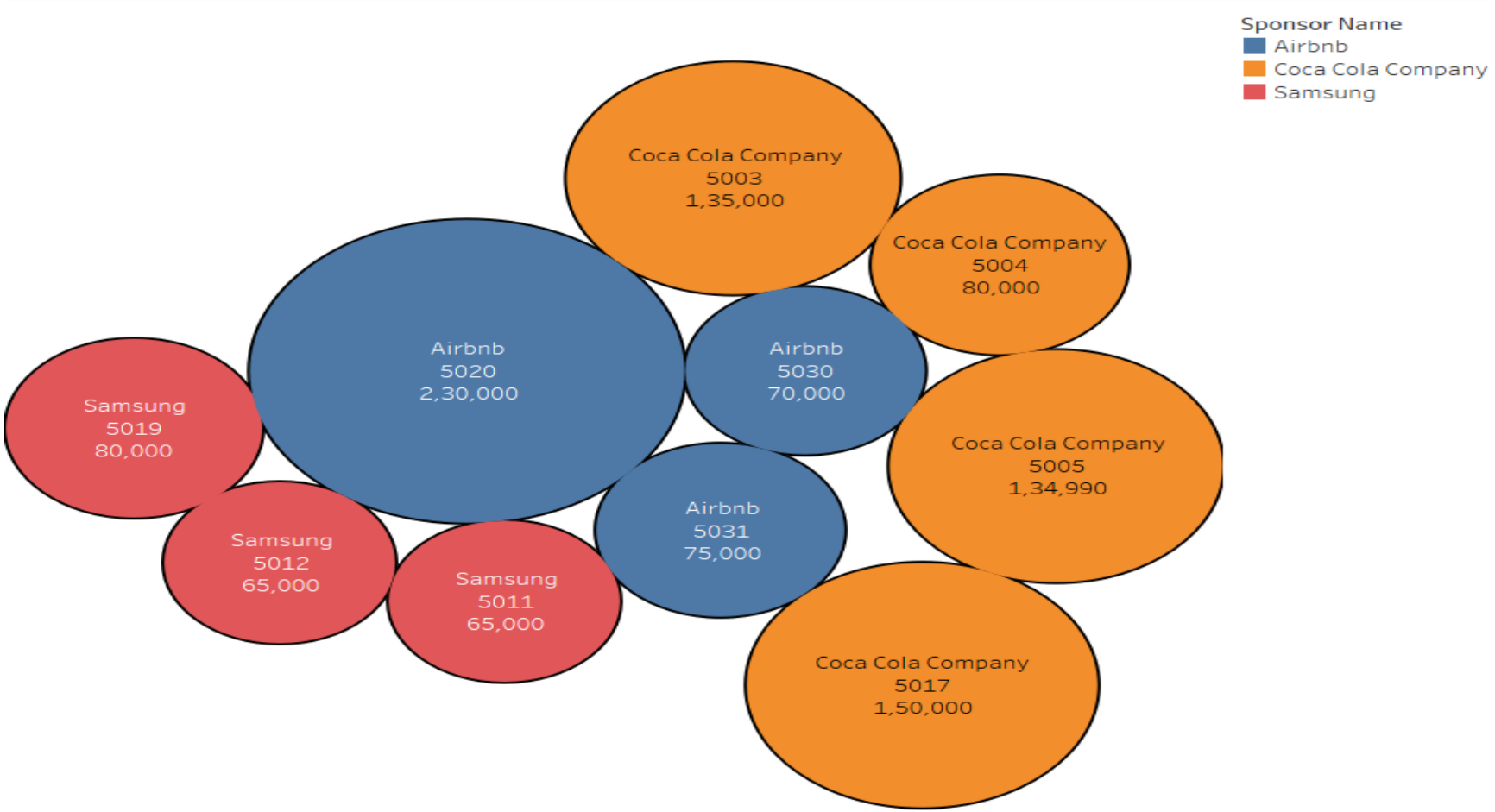
- Team events as well
- Stadiums to event multiple events at the same time
- World and olympic records for every event

Data Visualization

- Athlete count per country and medals tally
- Sponsorship details per event
- Ticket sales per event

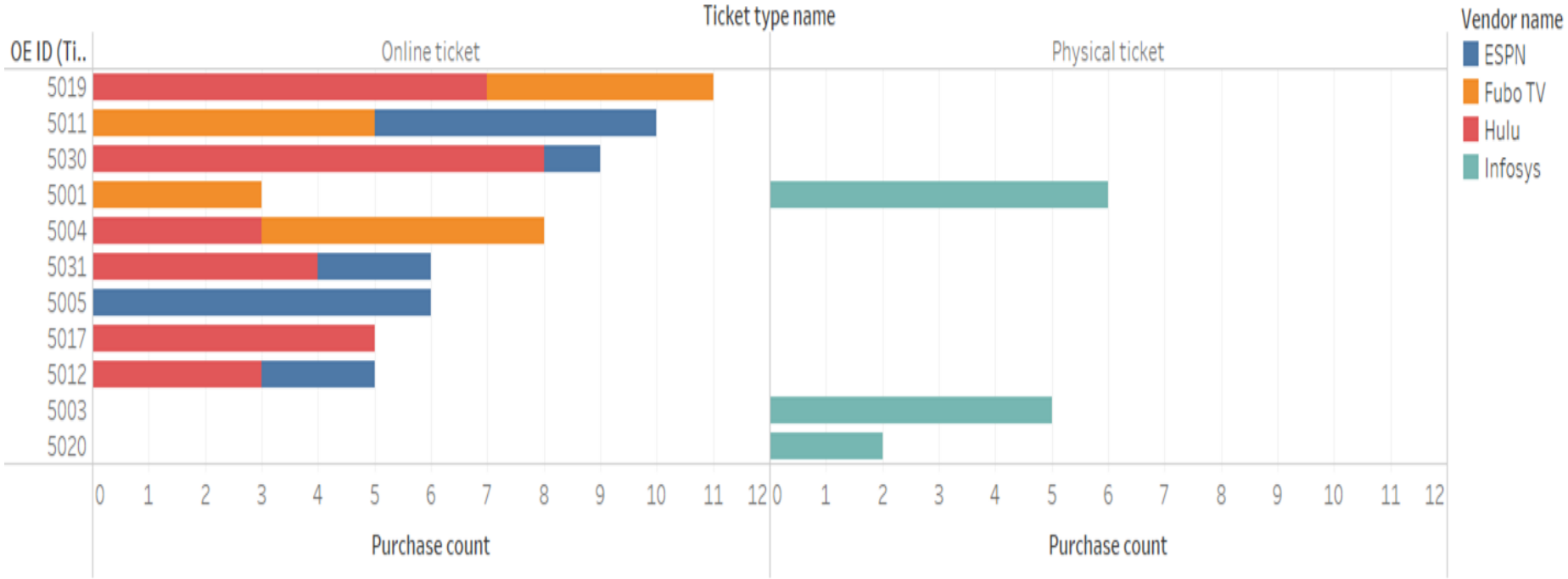
Athlete count and medal tally





Sponsorship details and amount

Ticket Sales



Sum of Purchase count for each OE ID (Ticket) broken down by Ticket type name. Color shows details about Vendor name.

Thank you

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