

# Google Analytics Skillshop: Complete Exam Study Guide

### **Segmented by Topic**

This comprehensive guide organizes all Google Analytics content into clear topic segments for easier review and retention.

# TOPIC 1: DIGITAL ANALYTICS FUNDAMENTALS [1] [2]

#### Definition

Digital analytics is the process of collecting, measuring, and analyzing data from digital sources (websites, mobile apps) to understand user behavior and improve marketing and business decisions. [2] [1]

# Purpose & Business Value

- Understand how users interact with websites/apps
- Evaluate marketing campaign effectiveness
- Improve content and user experience
- Support data-driven business decisions
- Track progress toward business objectives [1] [2]

### **Key Questions Analytics Answers**

- How do users interact with your website/app?
- How effective are marketing campaigns?
- Which content helps achieve business goals?
- How do users find your website/app?<sup>[1]</sup>

### **Real-World Examples**

- E-commerce (Google Merchandise Store): Track product views, cart additions, purchases
- **Mobile Gaming (Flood-It! app)**: Monitor app downloads, screen navigation, in-app purchases [1]

# **TOPIC 2: MARKETING FUNNEL**[2][1]

### **Four Stages & Analytics Focus**

Stage	Description	What Analytics Shows
Acquisition	Building awareness and acquiring user interest	Which marketing channels bring customers to your website/app
Engagement	Users interact with your business	What content users engage with and share
Monetization	Users become customers and make purchases	How many users become paying customers
Retention	Repeat interactions	How often users return to your website/app

#### **Key Insight**

Digital analytics aligns data with the marketing funnel to optimize performance at each stage. 11

# TOPIC 3: HOW GOOGLE ANALYTICS COLLECTS DATA [2] [1]

For Websites: Tags

**Tag Definition**: A small piece of code added to each page of your website to measure user behavior. [1] [2]

### **Three Ways to Implement Tags:**

#### 1. Google Tag Manager (GTM) - Recommended

- Manage tags via user-friendly interface
- No coding experience required
- Central location for all marketing tags
- Works with Google and non-Google tags [2] [1]

#### 2. Manual Installation

- Copy/paste code after <head> tag on every page
- Best for developers who prefer hard-coding
- Suitable for few simple tags [1] [2]

#### 3. Website Builder/CMS Integration

- Paste measurement ID into platform (WordPress, Shopify, etc.)
- Follow platform-specific instructions [2] [1]

# For Apps: Firebase SDK

**SDK Definition**: Software Development Kit used for mobile apps (iOS/Android) to collect app events. [1] [2]

#### **Automatically Collected App Events:**

- First opens
- In-app purchases
- Screen views [2] [1]

#### **Event Collection Process**

- 1. User interacts with website/app
- 2. Tag/SDK sends interaction data as events to GA
- 3. Events are processed into reports
- 4. Data becomes actionable insights [1]

**Important Note**: Once analytics processes data, it **cannot be changed**. Don't exclude data you might need later. [1]

# TOPIC 4: GOOGLE ANALYTICS ACCOUNT STRUCTURE [2] [1]

### **Three-Level Hierarchy**

Level	Description	Example
Account	Top-level container; data owned by single business entity	"MyCompany Analytics"
Property	Represents a website or app; where data is processed and linked to other Google products	"MyCompany Website"
Data Stream	Flow of data from a source to the property; controls what data is collected	"Website stream", "Android app stream"

### **Data Stream Types**

• Web Data Stream: For websites

• App Data Stream: For mobile apps (iOS/Android)

• Need package name (Android) or bundle ID (iOS) [2] [1]

#### **Best Practices for Account Structure**

- One account per company
- One property per brand/business unit
- Use single web data stream for consistent user/session reporting

• For multi-domain websites: Use **single web data stream + cross-domain measurement** [2]

### **Real-World Examples**

#### **Example 1: Fashion Blog**

- 1 Account
- 1 Property (website)
- 1 Data Stream (web) [1]

#### **Example 2: Mobile Racing Game**

- 1 Account
- 1 Property (app)
- 2 Data Streams (Android + iOS) [1]

# **Example 3: Food Delivery Service**

- 1 Account
- 2 Properties (customers + delivery drivers)
- 6 Data Streams total (3 per property: web, Android, iOS)[1]

### **Analytics 360**

Enterprise-level version with advanced features like sub-properties and roll-up properties. [2] [1]

# **TOPIC 5: ACCOUNT SETUP PROCESS**[2][1]

# Step-by-Step Setup

- 1. Visit <u>analytics.google.com</u>
- 2. Click "Start measuring"
- 3. Name your Account and choose data sharing settings
- 4. Create a Property (set time zone and currency)
- 5. Answer basic **business questions** (size, industry)
- 6. Choose Business Objectives (generates relevant reports)
  - o If unsure, select "Get baseline reports"
- 7. Create Data Streams (Web/App)
- 8. Install Tags or SDK
- 9. Verify collection via Realtime Report [2] [1]

#### **Measurement ID**

Unique identifier generated for each data stream to connect site/app to GA. [2] [1]

# **TOPIC 6: ENHANCED MEASUREMENT**<sup>[1]</sup> <sup>[2]</sup>

#### **Definition**

A setting that automatically measures many website interactions **without requiring code updates**. [2] [1]

# **Automatically Tracked Events**

- Page views
- Scrolls
- File downloads
- Video views
- Outbound link clicks
- Site search
- Form interactions [1] [2]

# Configuration

- Enabled by default when creating web data stream
- Can toggle on/off specific events individually
- No code edits needed to change settings [2] [1]

# TOPIC 7: EVENTS & DATA STRUCTURE $^{[1]}$ $^{[2]}$

### What are Events?

User interactions tracked by Analytics (page views, button clicks, purchases, sign-ups). [2] [1]

# **Four Types of Events**

Туре	Description	Example
Automatically Collected Basic interactions collected by default		First visit, outbound link clicks [1]
Enhanced Measurement	Common web events (if enabled)	Scrolls, downloads, video views [1] [2]
Recommended Events	Predefined names/parameters for industries	Purchase, add_to_cart, sign_up [1] [2]
Custom Events	User-defined for unique business needs	Brand_viewed, level_completed [1] [2]

#### **Event Components**

- Event Name: Describes the interaction (e.g., "purchase")
- Event Parameters: Additional context (e.g., "value", "item\_name", "video\_duration")
- User Properties: Attributes about the user (e.g., "country", "device\_category") [1] [2]

#### **Custom Event Limits**

- Up to 500 different event names
- No limit on total event volume
- Use logEvent method in app code [2] [1]

# TOPIC 8: DIMENSIONS & METRICS [1] [2]

#### **Core Definitions**

Concept	Description	Type	Example
Dimension	Descriptive attribute; answers "who, what, or where?"		Country, Device Category, Event Name
Metric	Metric Quantitative measurement; answers "how many?"		Total Users, Event Count, Revenue

# **Key Differences**

• Dimensions: Usually text, describe data

• Metrics: Always numbers, can apply mathematical operations [2] [1]

### **Example Scenario: Aria's Fashion Blog**

User 1: Subscribes on tablet from Mexico

• Event: Subscribe

• Parameter: Frequency = weekly

User Properties: Country = Mexico, Device = tablet [1]

User 2: Shares post on computer from Argentina

· Event: Share

• Parameter: Content Type = review

User Properties: Country = Argentina, Device = computer [1]

User 3: Buys book on mobile from Mexico for \$25

• Events: Add to cart, Purchase

• Parameter: Value = \$25

• User Properties: Country = Mexico, Device = mobile [1]

### **Report Example**

• **Dimension**: Country (values: Mexico, Argentina)

• Metrics: Total users, Events, Conversions, Revenue [2] [1]

#### **Custom Dimensions & Metrics**

• Created for custom events/parameters

• Must be registered in Admin → Custom definitions before appearing in reports

Not automatically available after creating custom event [2] [1]

# TOPIC 9: USER ROLES & PERMISSIONS [2] [1]

### **Six User Roles (Hierarchical)**

Role	Permissions	Can Manage Users?
Administrator	Full control of account; add/delete users; assign any role	
Editor	Full control of settings and properties	<b>×</b> No
Marketer	Create/edit/delete audiences, conversions, attribution models, events	<b>×</b> No
Analyst	Create/edit/delete explorations; collaborate on shared assets	
Viewer	View settings and data; add comparisons/dimensions	<b>×</b> No
None	No access to this account/property	<b>×</b> No

#### Role Inheritance

- Roles are inherited by default
- Assigning role at **account level** → applies to all properties
- Can assign role at **property level** for specific access
- **Higher roles inherit permissions of lower roles** (e.g., Marketer has Analyst + Viewer permissions) [1] [2]

#### **Data Restrictions**

• No cost metrics: Hides ad spend data

• No revenue metrics: Hides sales revenue data [2] [1]

### Where to Manage

# Admin → Account Access Management [1] [2]

# TOPIC 10: VERIFYING DATA COLLECTION [2] [1]

# **Realtime Report**

Purpose: Confirm data is successfully being collected [1] [2]

#### **Key Features:**

- Displays activity from past 30 minutes
- Shows number of users and devices
- Event count by event name card (interactive)
- Click through events to see parameters and values [2] [1]

How to Access: Reports → Realtime [1] [2]

#### What to Check:

- 1. Is there activity in past 30 minutes?
- 2. Are expected events being collected?
- 3. Are page URLs showing correctly? [1]

#### If No Data Shows:

- Wait up to **24 hours** for first-time installations
- Check if **thresholds** were applied (icon indicators)
- Open website/app to become active user
- Use Tag Assistant for troubleshooting [2] [1]

### **Tag Assistant**

- **Debugging tool** + Chrome extension
- Verifies correct tag implementation
- Provides additional debugging information [2] [1]

# TOPIC 11: ADMIN SECTION & DATA MANAGEMENT [1] [2]

### **Admin Section Purpose**

Central location to manage accounts, properties, data streams, users, and advanced features. [2] [1]

### **Key Admin Functions**

#### **User Management:**

- Add/remove users
- Assign roles and permissions
- Restrict sensitive data access [1]

#### **Data Stream Settings:**

- Modify enhanced measurement
- Configure tag settings
- Delete/restore data streams (35-day recovery window) [2] [1]

#### **Data Settings:**

- Data Retention: Period for cookie/identifier data
  - Doesn't affect standard reporting (aggregated data)
  - Affects advanced tools like Explore [1]

### **Account Change History:**

- View all account modifications
- Track who made changes and when [1]

# **Cross-Domain Measurement** [2] [1]

Purpose: Track users across multiple domains as single customer journey [2] [1]

**Use Case**: Shopping site + separate payment processor site [1] [2]

#### **Setup Steps:**

- 1. Admin → Data Streams
- 2. Open web data stream
- 3. Configure Tag Settings → Configure Your Domains
- 4. Add domain conditions for all sites
- 5. Verify: Look for gl parameter in URL when navigating between domains [2] [1]

#### Requirements:

- Same measurement ID for all domains
- Single data stream

• Editor permission [1] [2]

### Unwanted Referrals [2] [1]

**Definition**: Traffic from sources you want excluded from referral reports (e.g., payment processors, account management tools)  $\frac{[1]}{[2]}$ 

### **Setup Steps:**

- 1. Admin → Data Streams
- 2. Open web stream
- 3. Configure Tag Settings → List Unwanted Referrals
- 4. Add domains to exclude
- 5. Save<sup>[2] [1]</sup>

Limit: Maximum 50 unwanted referrals per data stream [1]

# Data Filters [2] [1]

Purpose: Permanently exclude data from processing (cannot be recovered) [1] [2]

#### Two Types:

#### 1. Internal Traffic Filter

- Excludes employee IP addresses
- Must first define IPs: Data Stream Settings → Define Internal Traffic
- Then create filter: Admin → Data Filters → Internal Traffic [2] [1]

#### 2. Developer Traffic Filter

- Excludes debug/test data when debug mode enabled
- Setup: Admin → Data Filters → Developer Traffic [1] [2]

#### Filter States:

- **Testing**: Data still appears but identifiable via dimension
- Active: Data permanently excluded from processing [2] [1]

#### **Critical Warning:**

- Filters apply from creation forward only
- Do NOT affect historical data
- Filtered data cannot be recovered [1] [2]

# TOPIC 12: CONVERSIONS [2] [1]

#### **Definition**

User actions valuable to your business (purchases, subscriptions, sign-ups). [1] [2]

# **Key Concept**

Conversions are a **subset of events** that are most valuable to your business. [2] [1]

# **Setup Process**

### Method 1: Mark Existing Event

- 1. Confirm event exists and is being collected
- 2. Admin → Events
- 3. Find event in table
- 4. Toggle "Mark as conversion" [1] [2]

#### Method 2: Add Before Event Occurs

- 1. Admin → Conversions
- 2. Click "New conversion event"
- 3. Enter exact event name
- 4. Save [2] [1]

# TOPIC 13: GOOGLE ANALYTICS INTERFACE [1] [2]

#### **Five Main Sections**

Section	Purpose	Key Features
Home	Personalized overview	Recent activity, relevant insights, becomes more personalized over time
Reports	Ready-made reports	Visualize user activity, answer common questions
Explore	Advanced analysis	Sophisticated audience discovery, comparison tools, custom visualizations
Advertising	Ad performance	Analyze ROI, budget allocation, attribution models (requires Google Ads link)
Admin	Settings management	Manage accounts, properties, events, data streams, user access

# **Top Navigation Tools**

#### **Account & Property Switcher:**

- Switch between accounts/properties from any page
- Located at top of screen [2] [1]

#### Search Bar:

- Find specific reports
- Ask questions in natural language (e.g., "How many users came from organic search in last 30 days?")
- Compare date ranges (e.g., "new users last month vs last year")
- View recent searches and suggested queries [1] [2]

# TOPIC 14: REPORTS OVERVIEW [2] [1]

# **Two Report Types**

Type	Description	Format
Overview Report Summarizes topic into multiple cards		Card-based layout
Detail Report	Deep dive into 1-2 dimensions	Table format with interactive options

# **Default Report Categories**

Report	Focus Question	Time Range
Reports Snapshot	Overview of key data points	Varies
Realtime	What's happening right now?	Past 30 minutes
Acquisition	Where do customers come from?	Default: Last 28 days
Engagement	What content do users engage with?	Default: Last 28 days
Monetization	What's customer shopping activity?	Default: Last 28 days
Retention	Are customers returning?	Default: Last 28 days
User Attributes	Who are the customers?	Default: Last 28 days
Tech	What technology do customers use?	Default: Last 28 days

### **Report Card Icons**

- Data Quality Icon: Indicates how much data is represented
- Filter Icon: Shows if filter is applied (hover for details) [1]

### **Key Acquisition Reports**

#### **User Acquisition Report**:

- Shows where **new users** come from
- Tracks first-ever campaign, medium, source
- Dimensions include "First user" prefix
- Helps understand initial user discovery [2] [1]

#### **Traffic Acquisition Report:**

- Shows where **new sessions** come from
- Includes new AND returning users
- Dimensions include "Session" prefix
- Tracks all traffic sources [1] [2]

**Session Definition**: Group of user interactions when engaging with website/app (begins when user opens browser, ends when browser tab closes) [1]

#### Campaign, Medium, Source:

- Campaign: Name of Google Ads or custom campaign
- **Medium**: Origin type (e.g., CPC = cost per click/paid search)
- **Source**: Specific origin (e.g., "Google")
- Channel: Logical grouping of source + medium [1]

### **Report Customization Options**

- Change date range (preset or custom)
- Add secondary dimensions (click + icon)
- Share report link (maintains your customizations)
- Customize navigation (Reports → Library)
- Maximum 7 report collections per property [2] [1]

# TOPIC 15: FILTERS & COMPARISONS IN REPORTS [2] [1]

# **Report Filters**

Purpose: Control what data is shown in reports [2] [1]

#### How to Use:

- 1. Click "Add filter" near report title
- 2. Create filter rules based on dimensions

3. Example: Show only users from Philippines [1] [2]

**Building Filter Rules**: Use dimension or metric values [2] [1]

### Comparisons

Purpose: Compare data side-by-side [1] [2]

#### How to Use:

- 1. Click "Add comparison" at top of page
- 2. Build comparison for dimensions
- 3. Example: Desktop vs Mobile users
- 4. View data for each comparison AND all users [2] [1]

#### Flexibility:

- Add comparisons to default and custom dimensions
- Combine multiple dimensions in single comparison [1] [2]

### **Sharing Customized Reports**

Click **share icon** in upper right to generate link with your filters/comparisons. [2] [1]

# TOPIC 16: EXPLORE (ADVANCED ANALYSIS) [1] [2]

### **Purpose**

Go beyond standard reports with deeper, customizable analyses and sophisticated audience discovery. [2] [1]

# **Key Features**

- Drag-and-drop dimensions/metrics
- Switch between analysis techniques
- Instant data visualizations
- Export as GA segments or audiences [1] [2]

### **Privacy**

- Explorations are **private by default**
- Only creator can view/edit unless shared
- To edit shared exploration: Create duplicate (three-dot menu → Duplicate) [2] [1]

# **Three Main Exploration Templates**

### 1. Free Form Exploration

• Purpose: Cross-tab layout with rows, columns, metrics

• Visualization Options: Bar charts, pie charts, line charts, scatter plots, maps

• How It Works: Drag-and-drop to arrange data

• Example Structure:

Rows: Country

o Columns: Device Category

o Values: Total Users [1] [2]

# 2. Funnel Exploration

• Purpose: Visualize steps toward conversion

• Use Cases:

Identify event sequences

Understand navigation flow

Find entry/drop-off points

• Analysis: Single, predefined path [2] [1]

#### 3. Path Exploration

• Purpose: Understand customer journey progression

• **Key Difference from Funnels**: Free-flowing, unlimited paths (not predefined)

• Insights: Can uncover looping behavior (users getting stuck) [1] [2]

# Why Data Differs Between Reports & Explore

Aspect	Reports	Explore
Sampling	Unsampled (100% data)	May use sampled data if large dataset
Processing Time	Updates faster	May lag slightly
Metrics/Dimensions	All available	Some not supported
Date Range Impact	Consistent	Past 48 hours may show differences

To Reduce Sampling: Shorten date range [2] [1]

# TOPIC 17: ABBREVIATIONS & KEY TERMS [1] [2]

Abbreviation	Full Term	Meaning
GA	Google Analytics	Digital analytics platform
GA4	Google Analytics 4	Current version of GA
GТM	Google Tag Manager	Tag management system
SDK	Software Development Kit	Code library for apps
CMS	Content Management System	Website building platform (WordPress, Shopify)
СРС	Cost Per Click	Paid search advertising metric
ROI	Return on Investment	Business profitability metric
IP	Internet Protocol	Network address identifier
UI	User Interface	Visual layout of application
_gl	Linker parameter	Cross-domain tracking parameter

# **TOPIC 18: SAMPLE EXAM QUESTIONS & ANSWERS** [2] [1]

1. What report shows data from the past 30 minutes?

• Answer: Realtime Report

2. What tool verifies correct tag installation?

• Answer: **Tag Assistant** 

3. What does CPC stand for?

• Answer: Cost Per Click

4. What are the 3 ways to install a GA tag?

o Answer: Manually, Google Tag Manager, or Website Builder/CMS

5. What's the difference between dimension and metric?

Answer: Dimension describes (text); Metric measures (numbers)

6. Where can you manage user roles?

• Answer: Admin → Account Access Management

7. Which exploration type shows steps toward conversion?

• Answer: Funnel Exploration

8. How many data streams can you create per property?

Answer: Multiple (web + app streams)

9. Are conversions a subset of events most valuable to your business?

• Answer: Yes

10. Does the Editor role include Analyst permissions?

• Answer: **Yes** (roles are hierarchical)

11. Does Google Analytics collect web and app interactions as events?

• Answer: **Yes** 

12. When you create a custom event, is data automatically available in reports?

• Answer: **No** (must register custom dimensions/metrics)

13. Which filter type uses IP addresses to exclude data?

• Answer: Internal traffic data filter

14. Which report is NOT found in default Reports navigation?

• Answer: **Funnel report** (found in Explore, not Reports)

15. What do you use when building filter/comparison rules?

• Answer: **Dimension or metric values** 

# STUDY TIPS & MNEMONICS [1] [2]

• DAM: Dimensions Are Meaningful (text labels)

MNM: Metrics are Numbers Measured

• ACE: Account → Property → Data Stream (structure)

• RACE: Reports, Admin, Compare, Explore (interface sections)

• EVENT: Every Value Explains Notable Tracking

**Good luck on your midterm exam!** Review each topic segment thoroughly and practice identifying dimensions vs. metrics, understanding the account structure, and knowing where to find key settings in the Admin section.

\*\*

1.101-and-102.txt

2. Summary.pdf