



빅쿼리를 활용한 빅데이터 분석 (28)

서진호

자료 다운로드: <https://www.github.com/synabreu/BigQuery>

제 28 강 목표

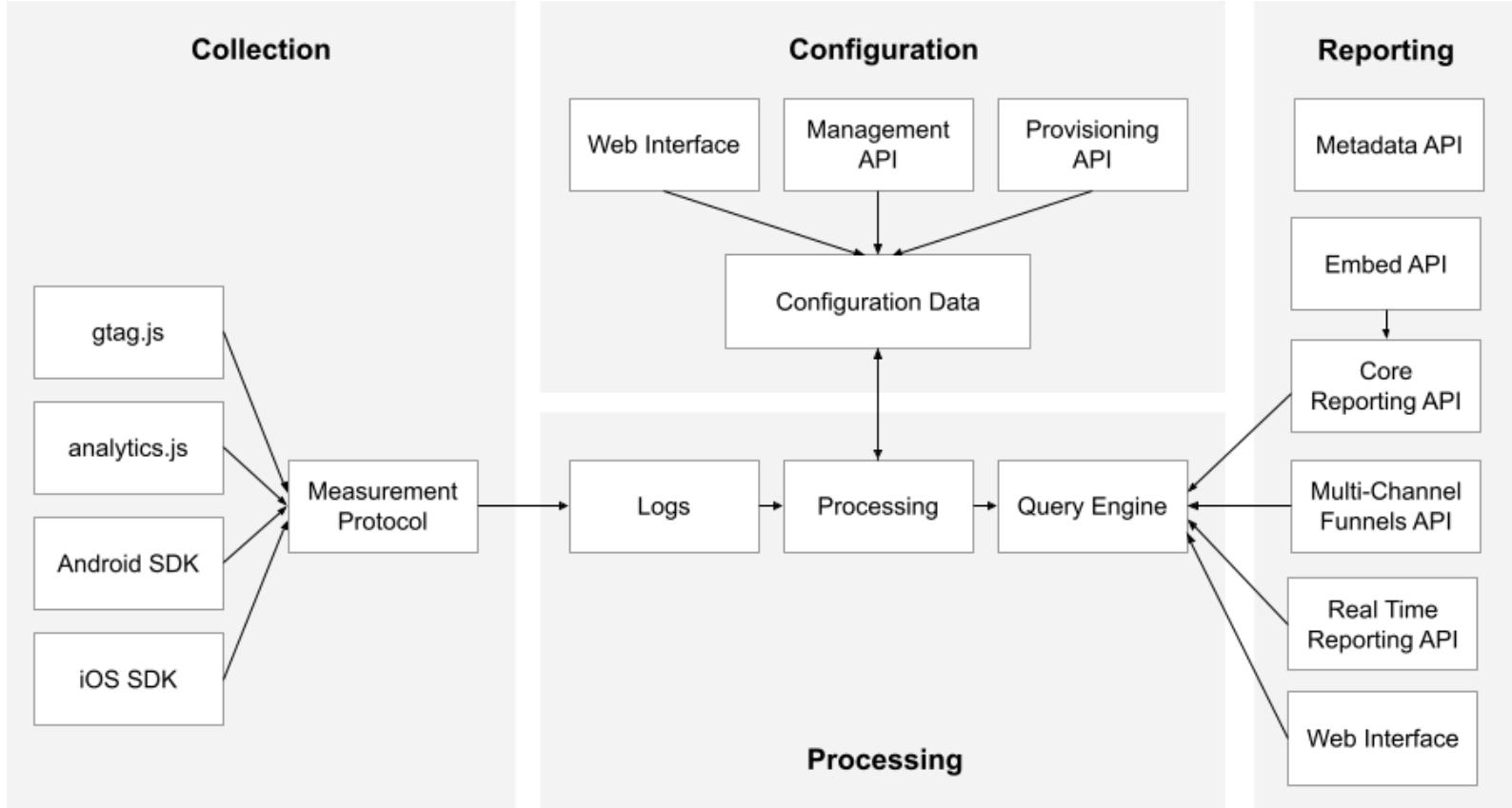
- 
- A photograph of a woman from behind, standing on a rocky outcrop. She wears a blue fedora, a light-colored sweater, a patterned scarf, and jeans. A brown backpack is strapped to her back. She is looking out over a vast, hilly landscape with autumn-colored trees under a cloudy sky.
1. Google Analytics 와 아기акс서
 2. 실습1 - 구글 애널리틱스 데모
 3. 실습2 - 구글 애널리틱스4에서
빅쿼리 링크(Export 설정)
 4. 실습3 - 빅쿼리에서 쿼리 조회

구글 애널리틱스

- 데이터를 수집, 구성, 분석하는 구글 분석 도구
- 웹사이트, 웹 및 모바일 앱, 인터넷 연결 기기의 측정을 설정하고 조정함.
- 단순하면서 강력한 API를 사용하여 구글 애널리틱스 기반의 환경을 구축할 수 있음.
- 측정용 라이브러리 및 SDK – HTML, JavaScript, 모바일 앱(Android/iOS for Firebase)
- 보고 및 구성 API: Data API, Core Report API, Embed API, Multi-Channel Funnels Report API, Real Time Reporting API, Admin API, Management API, User Detection API



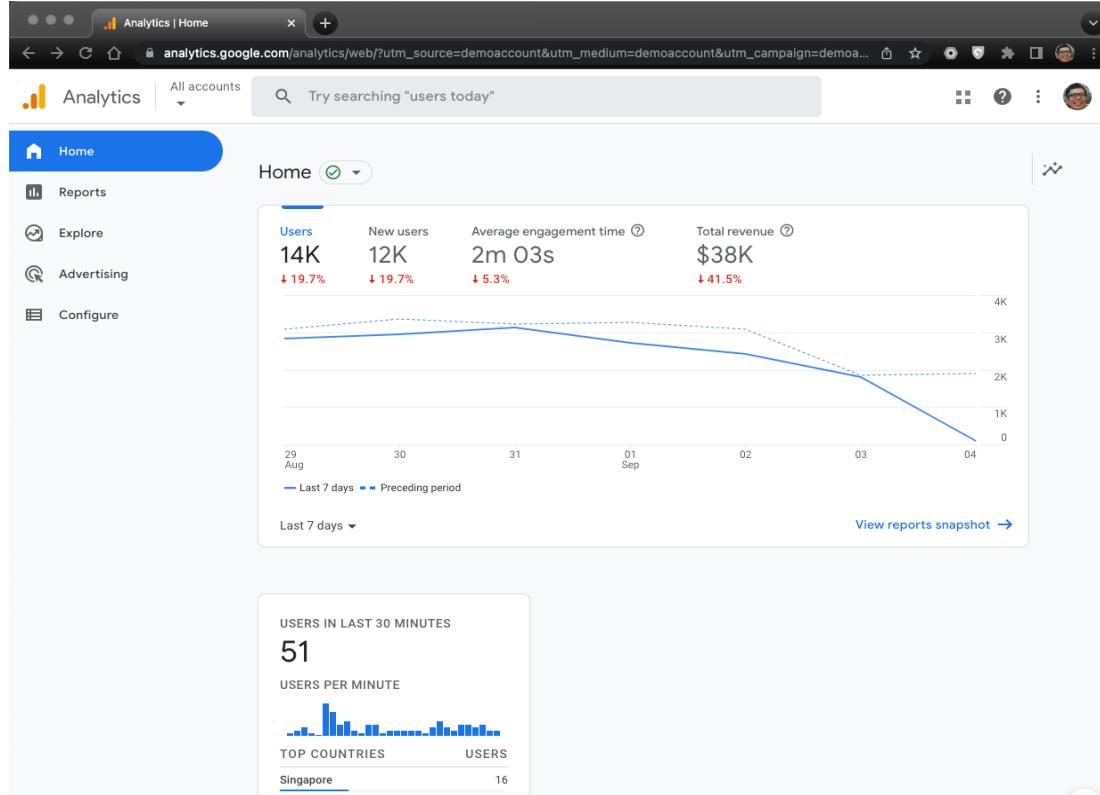
구글 애널리틱스 API 아키텍처



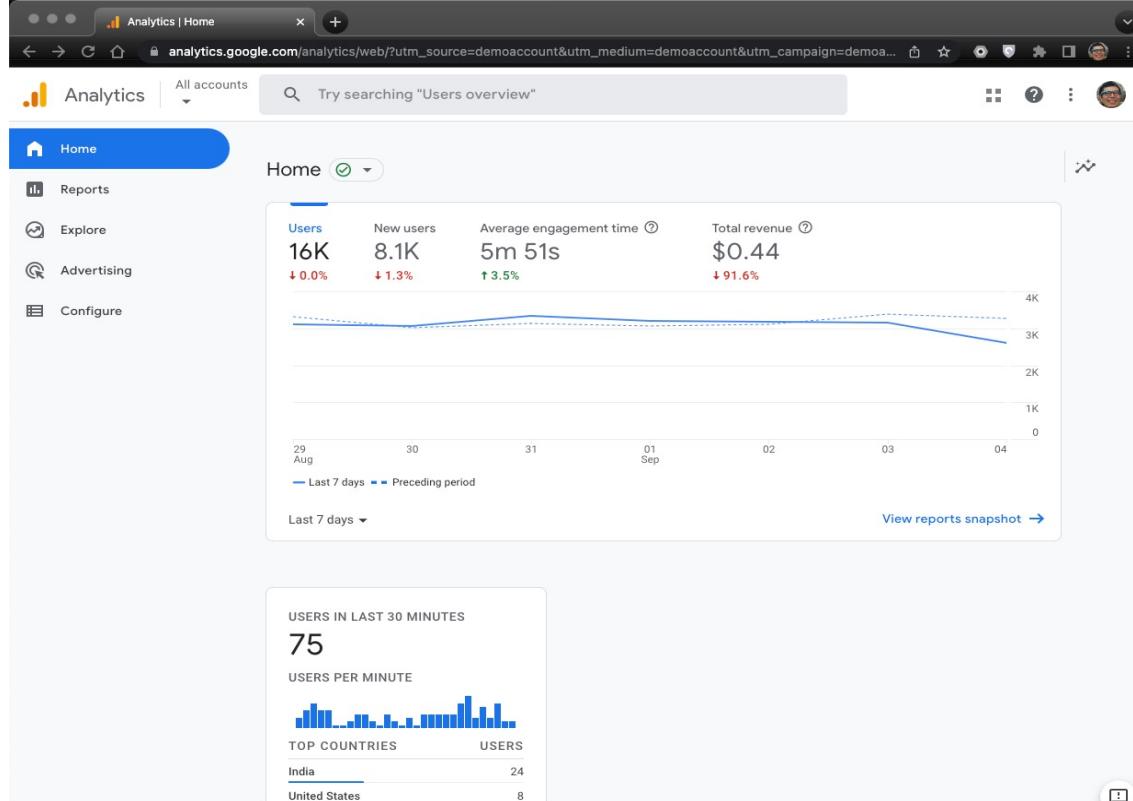
실습1 – 구글 애널리틱스 데모 웹사이트



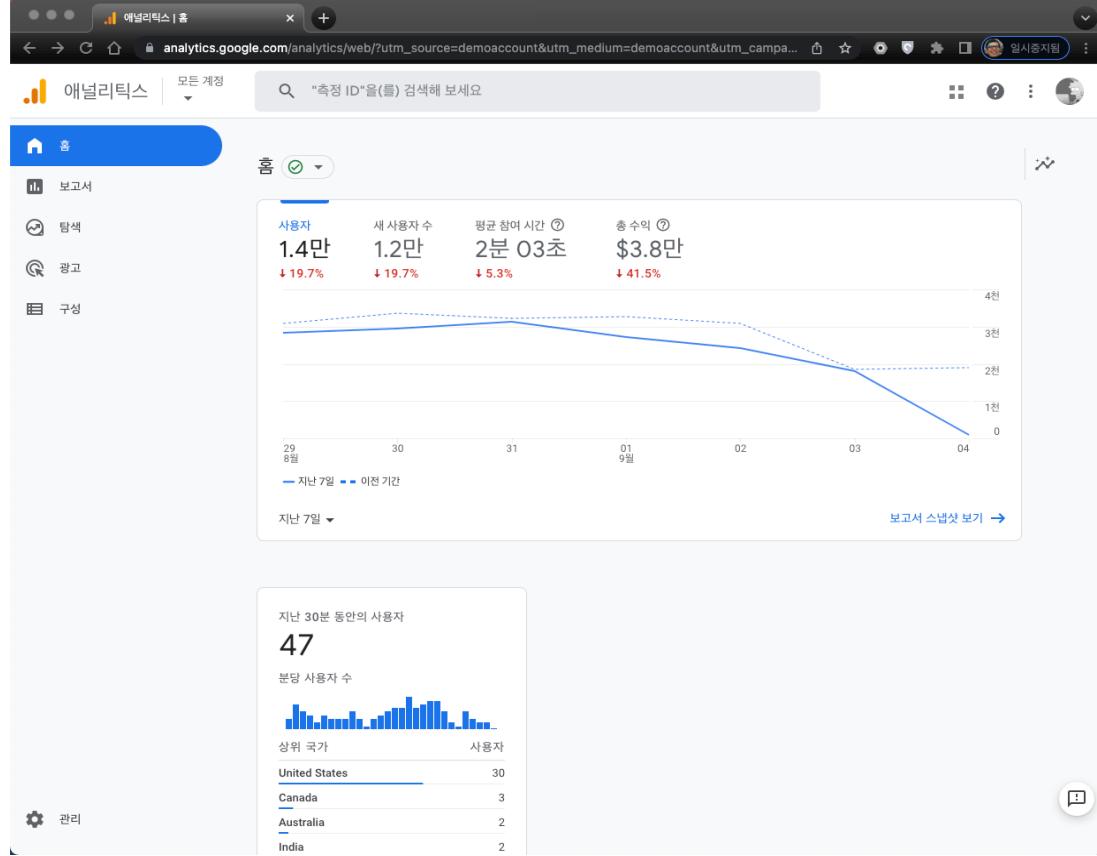
Google Merchandise Store(웹 데이터)



Flood-It! (앱 및 웹 데이터)



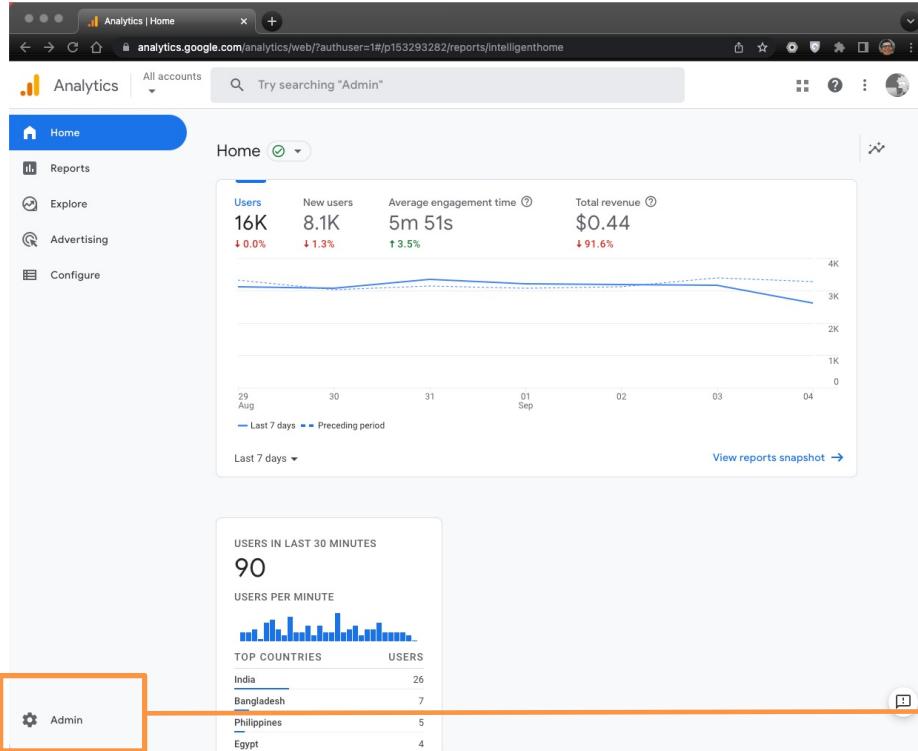
Flood-It! (앱 및 웹 데이터) - Firebase



실습2 - 구글 애널리틱스4에서 빅쿼리로 링크하기



구글 애널리틱스에서 Admin 실행



The screenshot shows the Google Analytics Home page. At the top, there's a summary card with key metrics: Users (16K), New users (8.1K), Average engagement time (5m 51s), and Total revenue (\$0.44). Below this is a line chart showing user activity over the last 7 days compared to the preceding period. The chart shows a slight dip in user count from Aug 31 to Sep 04. On the left sidebar, there are navigation links for Home, Reports, Explore, Advertising, and Configure. In the bottom left corner, there's a small 'Admin' button with a gear icon, which is highlighted with an orange box. To the right of the Admin button, an orange arrow points towards the text 'Admin 클릭'.

Admin 클릭

구글 애널리틱스에서 Admin 화면

The screenshot shows the Google Analytics Admin interface. The top navigation bar includes the Analytics logo, a search bar with the placeholder "Try searching 'Admin'", and a user profile icon. The main content area is divided into two columns: the left column for "Account" management and the right column for "Property" management.

Account Column:

- Account:** Demo Account (dropdown menu)
- Actions:** + Create Account
- Links:** Account Settings, Account Access Management, All Filters, Trash Can

Property Column:

- Property:** GA4 - Flood-It! (153293282) (dropdown menu)
- Actions:** + Create Property
- Links:** Setup Assistant, Property Settings, Data Streams, Data Settings, Data Import, Reporting Identity
- PRODUCT LINKS:** Google Ads Links, Ad Manager Links, BigQuery Links, Display & Video 360 Links, Merchant Center, Google Play Links, Search Ads 360 Links, Search Console Links

Left Sidebar:

- Home icon
- Dashboard icon
- Reporting icon
- Data icon
- Segments icon
- Customization icon
- Help icon
- Logout icon

Bottom Navigation:

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Select Account

The screenshot shows the Google Analytics Admin interface. On the left, there's a sidebar with icons for Home, Admin, User, and Help. The main area has tabs for 'ADMIN' (selected) and 'USER'. Under 'ADMIN', there's a 'Create Account' button and a search bar labeled 'Try searching "Admin"'. A dropdown menu titled 'Select Account' is open, showing 'Demo Account' and 'synabreu', with 'synabreu' highlighted by an orange rectangle. To the right of the account selection, there's a 'Property' section with a 'Create Property' button, a dropdown for 'GA4 - Flood-It! (153293282)', and links for 'Setup Assistant', 'Property Settings', 'Data Streams', 'Data Settings', 'Data Import', and 'Reporting Identity'. Below these are 'PRODUCT LINKS' for Google Ads, Ad Manager, BigQuery, Display & Video 360, Merchant Center, Google Play, Search Ads 360, and Search Console. At the bottom, there's a footer with links to Google Analytics home, Terms of Service, Privacy Policy, and a feedback link.

synabreu 선택

Create Property 실행

The screenshot shows the Google Analytics Admin interface. On the left, there's a sidebar with icons for Home, Account, User, Admin, and Settings. The main area has tabs for 'ADMIN' and 'USER'. Under 'ADMIN', there are sections for 'Account' (with a '+ Create Account' button), 'Property' (with a '+ Create Property' button highlighted by an orange box and arrow), 'Setup Assistant', 'Property Settings', 'Property Access Management', 'Data Streams', 'Data Settings', 'Data Import', 'Reporting Identity', 'Attribution Settings', 'Property Change History', and 'Data Deletion Requests'. Below these are 'PRODUCT LINKS' for Google Ads Links, Ad Manager Links, BigQuery Links, and Display & Video 360 Links. At the bottom, there's a footer with links to Analytics home, Terms of Service, Privacy Policy, and Send feedback, along with a Google Cloud Platform logo.

Create Property 클릭

Create property - Property 실행

Analytics

analytics.google.com/analytics/web/?authuser=1#%2Fa117954352p330446301%2Fadmin%2Fproperty%2Fcreate

All accounts > synabreu

Analytics | GoogleKR | Try searching "Admin"

ADMIN | USER

Create property

1 Property setup

Property details

A property represents a business's web and/or app data. An account can contain one or more properties. [Learn more](#) ["Navigate to your Firebase account](#) if you want to create a new property for an existing Firebase project.

Create a Google Analytics 4 property to measure your web and/or app data.

Property name

Google Cloud

Reporting time zone

United States (GMT-07:00) Los Angeles Time

Currency

US Dollar (USD \$)

You can edit these property details later in Admin

Show advanced options

98 more properties can be created on this account.

Next

2 About your business

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Google Cloud 입력

Create property - About your business

The screenshot shows the 'About your business' step in the Google Analytics property creation process. The 'Business size' section is highlighted with an orange box. The 'Small - 1 to 10 employees' option is selected. Below it, a list of intentions is shown with all checkboxes checked. At the bottom, there are 'Create' and 'Previous' buttons.

Business Size 와 관련된 내용을 선택 후 Create 클릭

Start Collecting Data

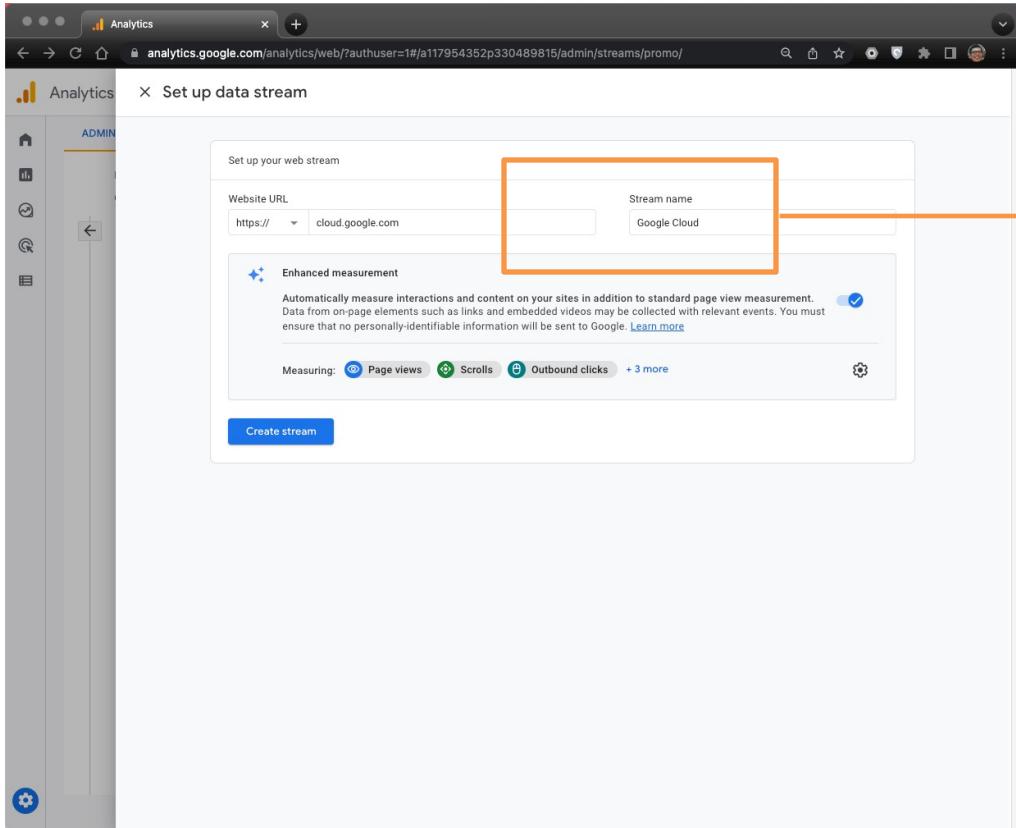
The screenshot shows the Google Analytics Admin interface. The left sidebar is titled 'ADMIN' and contains the following navigation items:

- Property (+ Create Property) (highlighted)
- Setup Assistant
- Property Settings
- Property Access Management
- Data Streams (highlighted)
- Data Settings
- Data Import
- Reporting Identity
- Attribution Settings
- Property Change History
- Data Deletion Requests
- PRODUCT LINKS
- Google Ads Links
- Ad Manager Links
- BigQuery Links
- Display & Video 360 Links
- Merchant Center
- Google Play Links

The main content area is titled 'Start collecting data' and includes the following text: 'To set up data collection for your website or app, choose from where you will be collecting data (the Web, an Android app, or an iOS app). Next, you'll get instructions for adding a data collection tag to that source.' Below this is a 'Learn more about data collection' link. A section titled 'Choose a platform' contains three buttons: 'Web' (highlighted with an orange box), 'Android app', and 'iOS app'. At the bottom of the page, there is a footer with links to 'Analytics home', 'Terms of Service', 'Privacy Policy', and 'Send feedback'.

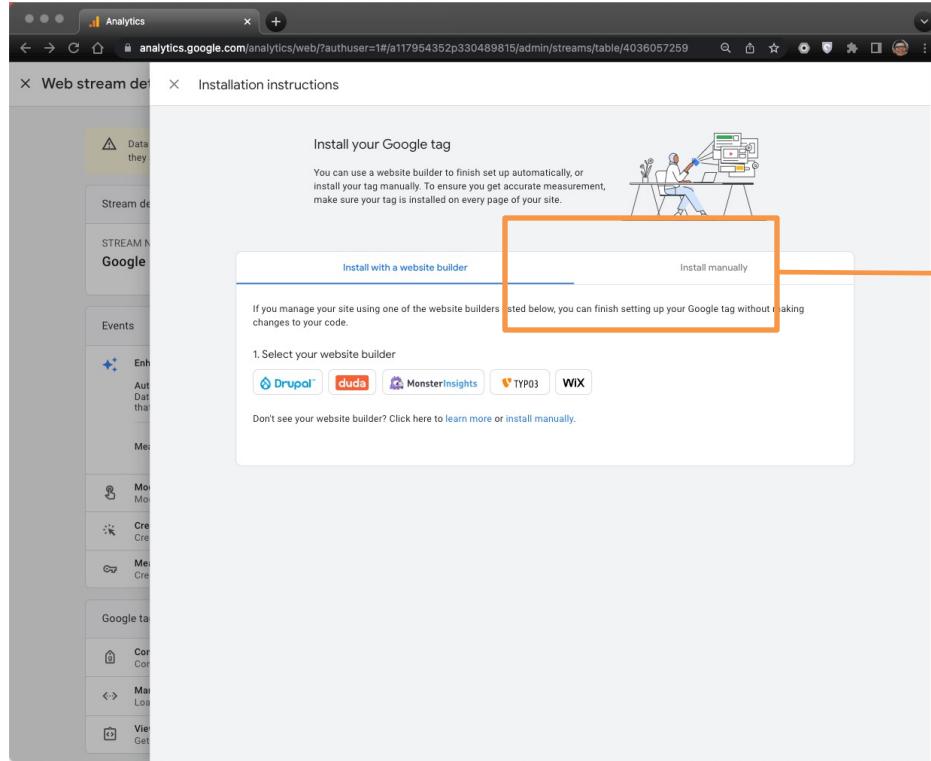
Web 클릭

Set up data stream



- Website URL: cloud.google.com
- Stream name: Google Cloud
- Create Stream 클릭

Installation instruction



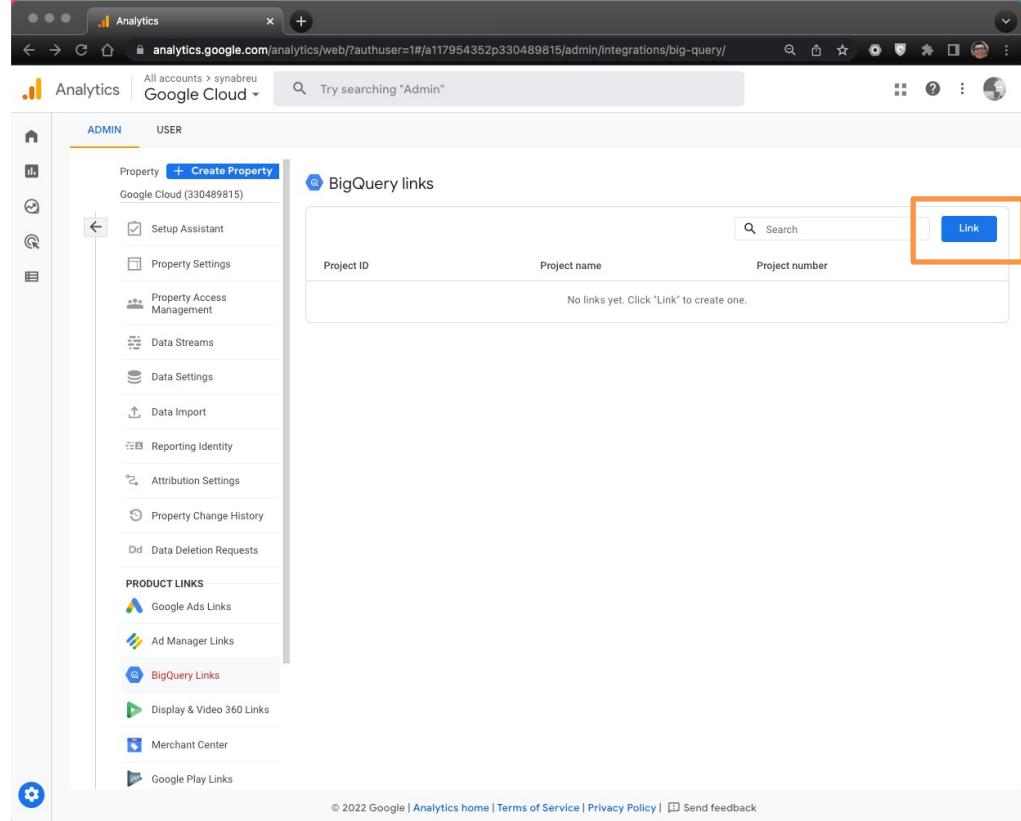
Install with a website builder
와 Install manually 보기

BigQuery Links 실행

The screenshot shows the Google Analytics Admin interface. On the left, there's a sidebar with sections like 'ADMIN', 'USER', 'Property' (Google Cloud), 'Setup Assistant', 'Property Settings', 'Property Access Management', 'Data Streams' (which is highlighted with a red box), 'Data Settings', 'Data Import', 'Reporting Identity', 'Attribution Settings', 'Property Change History', 'Data Deletion Requests', 'PRODUCT LINKS' (which includes 'Google Ads Links', 'Ad Manager Links', and 'BigQuery Links'), 'Display & Video 360 Links', 'Merchant Center', and 'Google Play Links'. The main content area is titled 'Data Streams' and shows a list of streams, including 'Google Cloud https://cloud.google.com' with the ID '4036057259'. Below the list, it says 'No data received in past 48 hours.'

Data Streams 확인 후
BigQuery Links 클릭

BigQuery - Links



The screenshot shows the Google Analytics interface for linking to BigQuery. On the left, a sidebar menu is open under the 'ADMIN' tab, showing various settings like Property ID, Project name, and Project number. A prominent orange arrow points from the 'Link' button in the main content area to the right.

Analytics | All accounts > synabreus | Google Cloud | Try searching "Admin"

ADMIN USER

Property + Create Property
Google Cloud (330489815)

Setup Assistant
Property Settings
Property Access Management
Data Streams
Data Settings
Data Import
Reporting Identity
Attribution Settings
Property Change History
Data Deletion Requests

PRODUCT LINKS

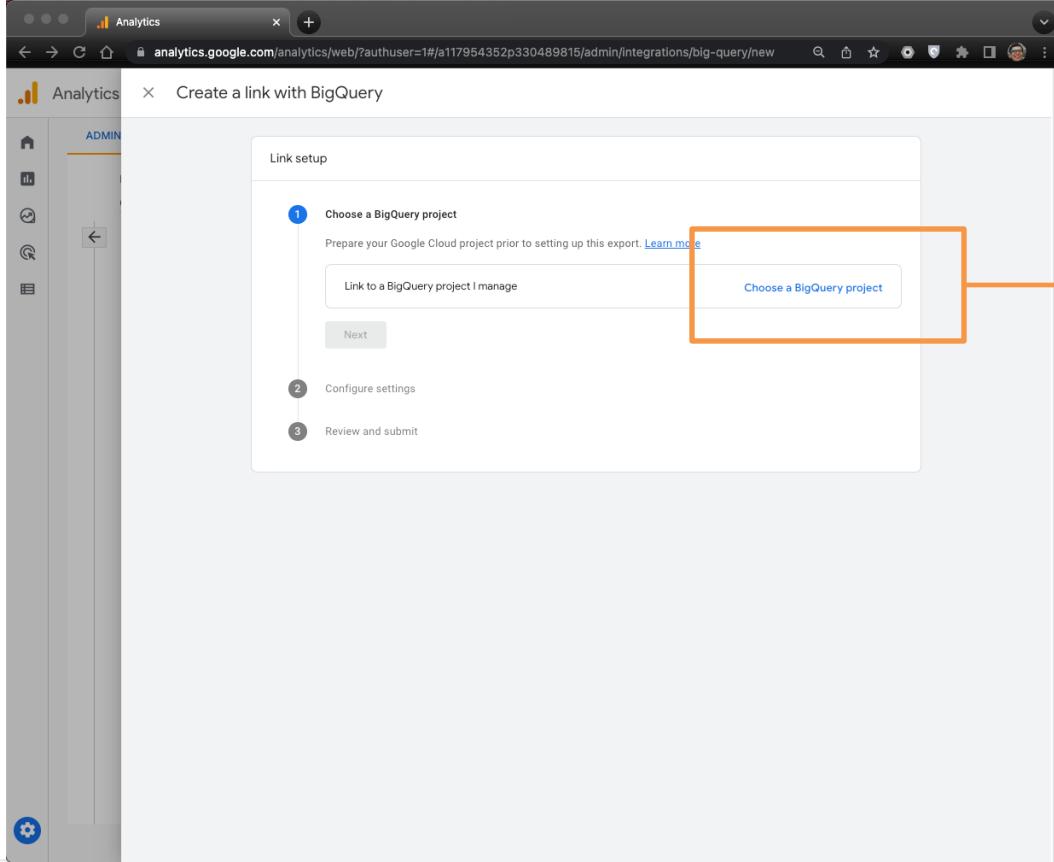
- Google Ads Links
- Ad Manager Links
- BigQuery Links** (highlighted with an orange box)
- Display & Video 360 Links
- Merchant Center
- Google Play Links

Link

No links yet. Click "Link" to create one.

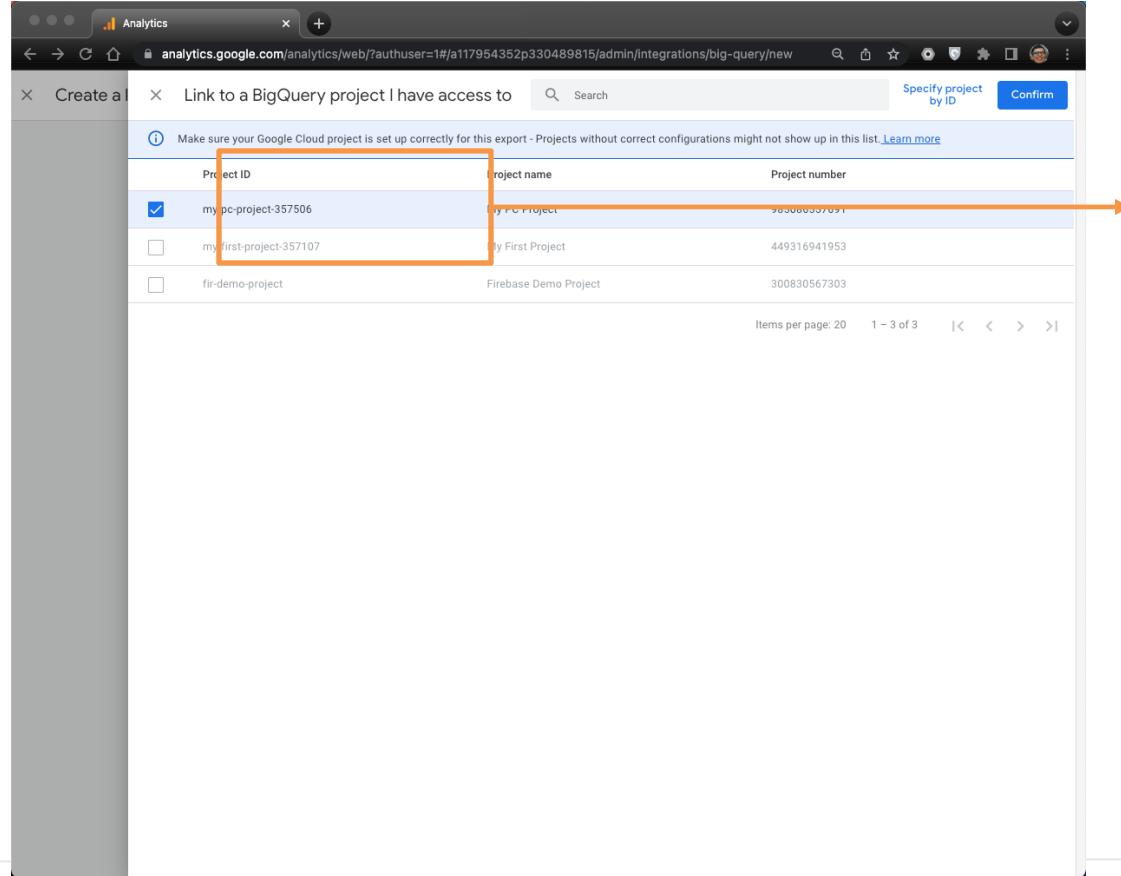
Link 실행

Links Setup



Choose a BigQuery project
선택

BigQuery Project 선택

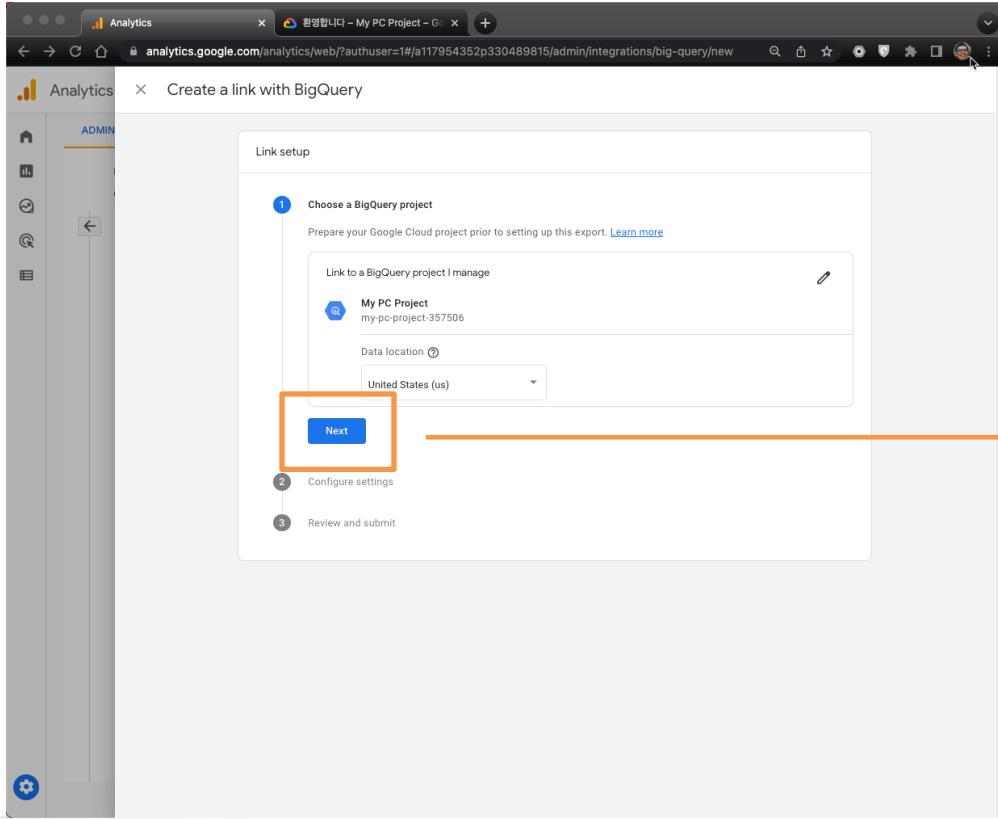


The screenshot shows a web browser window with the URL analytics.google.com/analytics/web/?authuser=1#/a117954352p330489815/admin/integrations/big-query/new. The page title is "Create a new BigQuery project". A search bar and a "Specify project by ID" button are at the top. Below is a table with three columns: "Project ID", "Project name", and "Project number". The first row, "my-pc-project-357506", has a checked checkbox and is highlighted with a red box. An orange arrow points from this row to the right. The second row, "my-first-project-357107", and the third row, "fir-demo-project", both have unchecked checkboxes.

Project ID	Project name	Project number
<input checked="" type="checkbox"/> my-pc-project-357506	My PC Project	363886357091
<input type="checkbox"/> my-first-project-357107	My First Project	449316941953
<input type="checkbox"/> fir-demo-project	Firebase Demo Project	300830567303

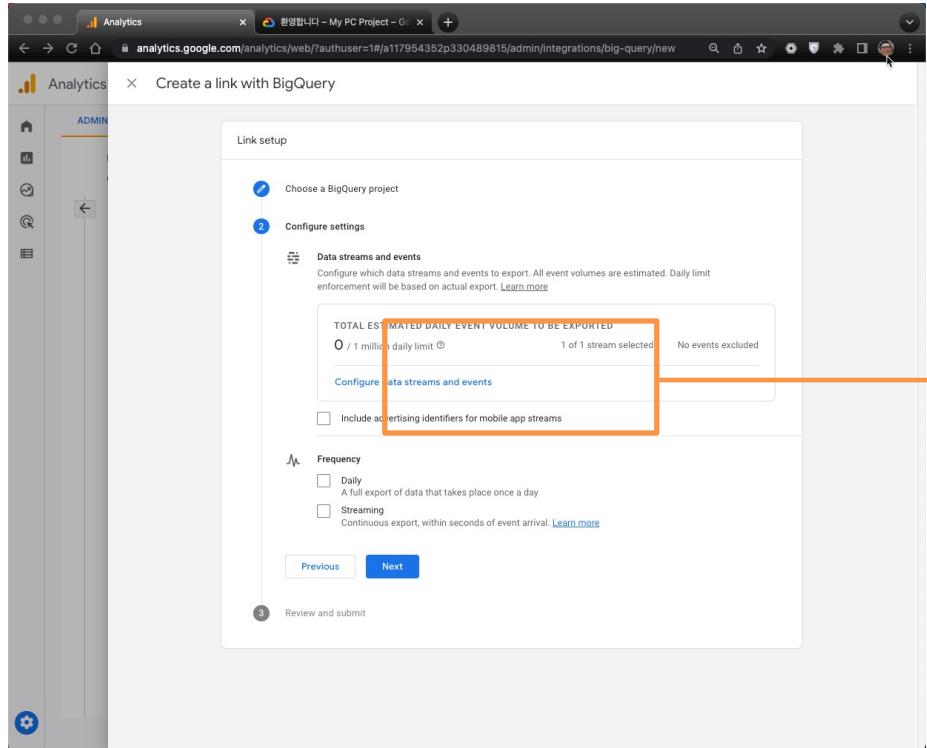
my-pc-project 선택 후
Confirm 클릭

Link setup -> Choose a BigQuery Project



Next 클릭

Link setup -> Configure settings



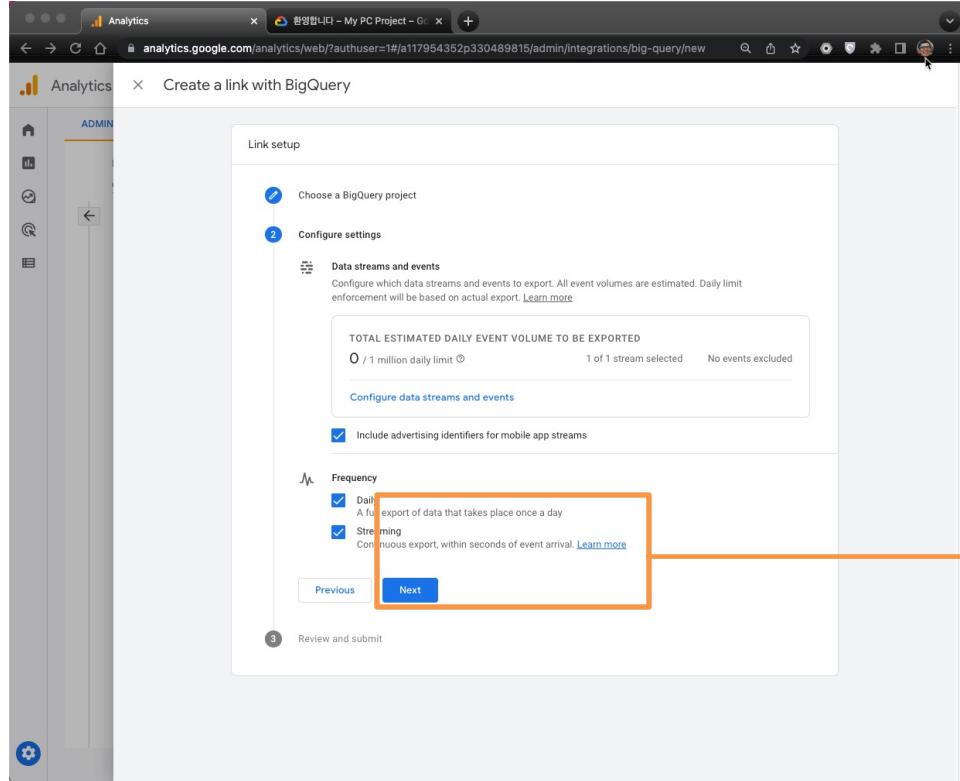
Configure data streams and events 클릭

Configure data streams and events

The screenshot shows the 'Configure data streams and events' page in Google Analytics. At the top, there's a header with the title and a sub-header 'TOTAL ESTIMATED DAILY EVENT VOLUME TO BE EXPORTED 0 / 1 million daily limit'. Below this, a section titled 'Data streams to export' lists one stream: 'Google Cloud' (ID: 4036057259, Platform: Web). The 'Stream name' column has a checked checkbox. To the right of the table are columns for 'Excluded event volume' and 'Daily event volume', both showing 0. Below the table is a pagination control 'Items per page: 10' and a page number '1 ~ 1 of 1'. Underneath is another section titled 'Events to exclude' which says 'No events excluded'. It includes buttons for 'Specify event by name' and 'Add'. A note at the bottom states 'No excluded events yet. Click "Add" or "Specify event by name" to choose which event to exclude during export.'

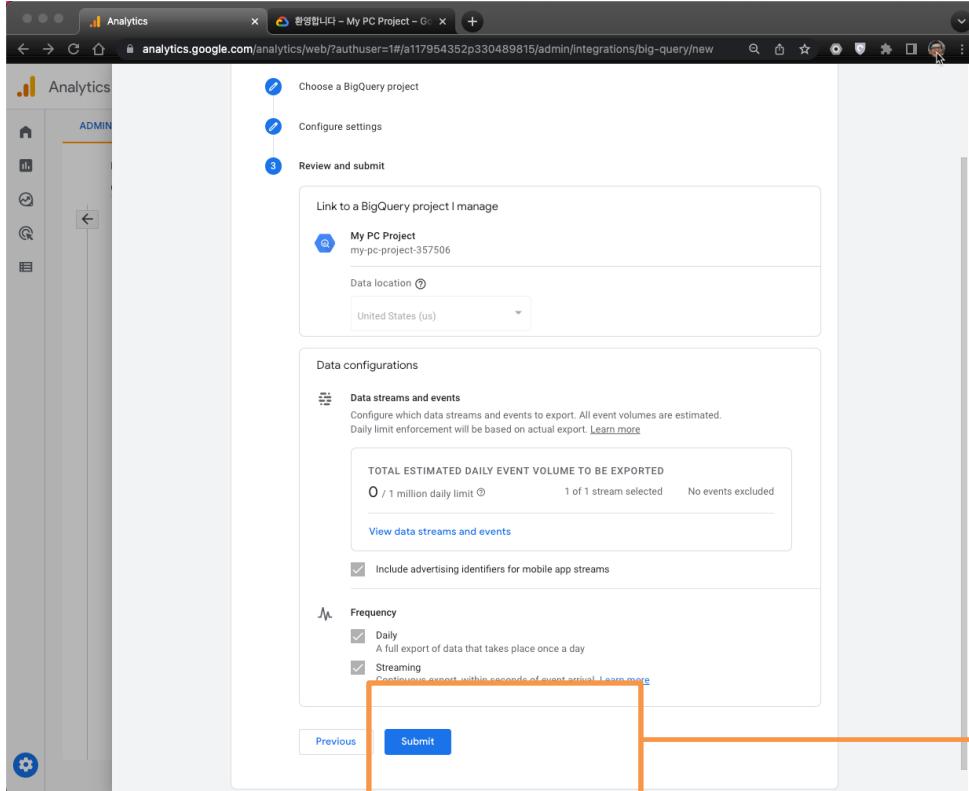
여러분의 웹사이트를 선택
한 후 Apply 클릭

Link setup -> Configure settings



모두 선택 후 Next 클릭

Review and submit



Submit 클릭

실습3 – 빅쿼리에서 쿼리 조회하기

