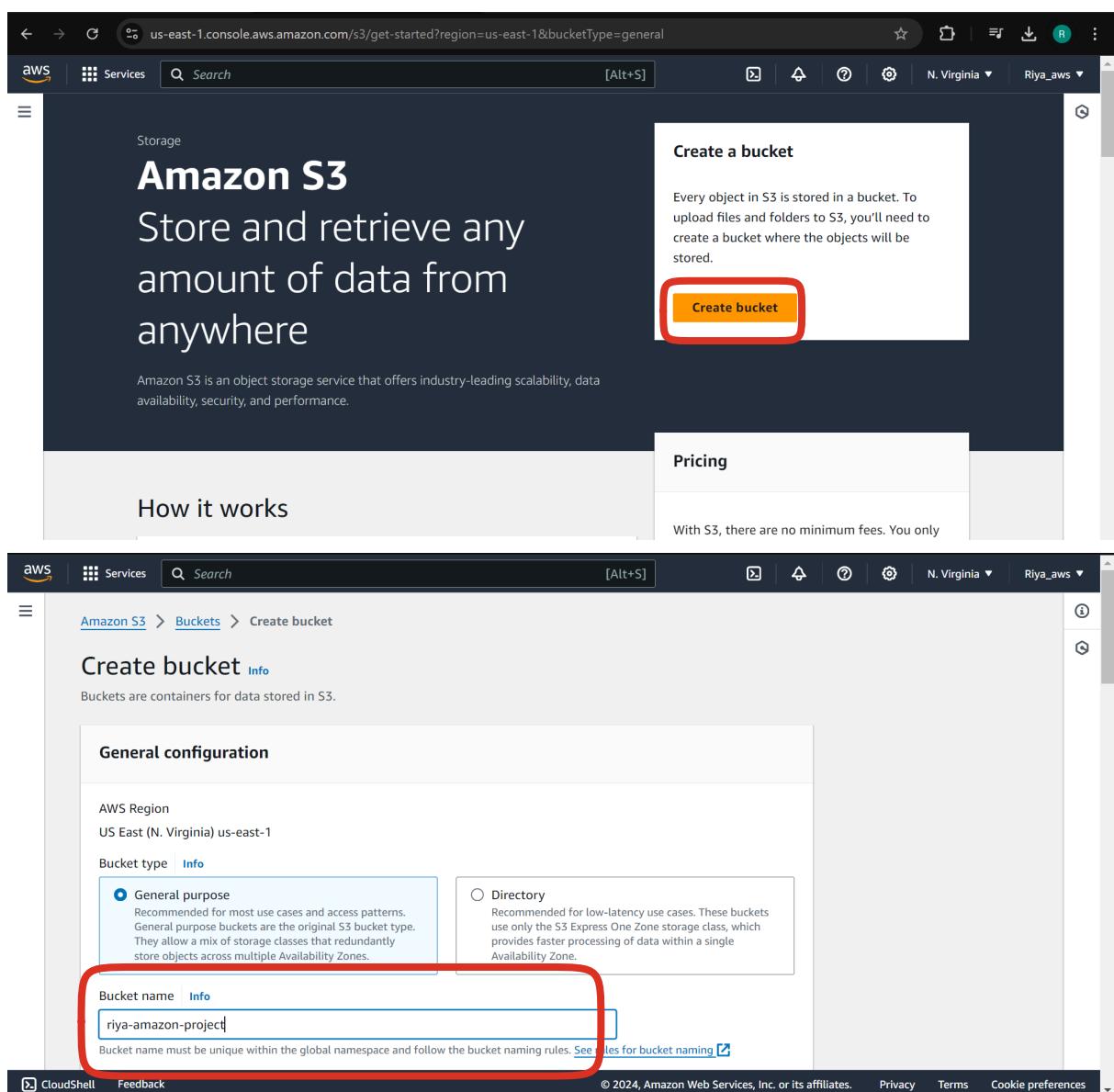


# Visualise data Using Amazon QuickSight | AWS Project

Here's the step by step guide for the mini project

1. **Extract the Dataset:** The first step is to extract the dataset that will be visualised on the dashboard. **The required dataset is included in this repository**, so you can use it directly for building your own dashboard. The Manifest file is necessary to link the data stored in the S3 bucket with Amazon QuickSight. It tells QuickSight where the data resides and how to interpret it.
2. Sign in to your AWS Account and then search for S3. Create an Amazon S3 bucket. Give it a suitable name. In my case I have named it as *riya-amazon-project*. Keep all default settings as it is and just scroll down to click on Create option.



aws Services Search [Alt+S] N. Virginia Riya\_aws

Bucket owner enforced

### Block Public Access settings for this bucket

Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to this bucket and its objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to this bucket or objects within, you can customize the individual settings below to suit your specific storage use cases. [Learn more](#)

**Block all public access**

Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.

- Block public access to buckets and objects granted through new access control lists (ACLs)**  
S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.
- Block public access to buckets and objects granted through any access control lists (ACLs)**  
S3 will ignore all ACLs that grant public access to buckets and objects.
- Block public access to buckets and objects granted through new public bucket or access point policies**  
S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.
- Block public and cross-account access to buckets and objects through any public bucket or access point policies**  
S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.

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Server-side encryption with Amazon S3 Managed Keys (SSE-S3)

- Server-side encryption with AWS Key Management Service keys (SSE-KMS)
- Dual-layer server-side encryption with AWS Key Management Service keys (DSSE-KMS)  
Secure your objects with two separate layers of encryption. For details on pricing, see [DSSE-KMS pricing](#) on the Storage tab of the [Amazon S3 pricing page](#).

Bucket Key  
Using an S3 Bucket Key for SSE-KMS reduces encryption costs by lowering calls to AWS KMS. S3 Bucket Keys aren't supported for DSSE-KMS. [Learn more](#)

Disable  
 Enable

### Advanced settings

After creating the bucket, you can upload files and folders to the bucket, and configure additional bucket settings.

Cancel **Create bucket**

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Successfully created bucket "riya-amazon-project"  
To upload files and folders, or to configure additional bucket settings, choose [View details](#).

Amazon S3 > Buckets

Account snapshot - updated every 24 hours All AWS Regions View Storage Lens dashboard

General purpose buckets Directory buckets

General purpose buckets (1) [Info](#) All AWS Regions

Buckets are containers for data stored in S3.

Name	AWS Region	IAM Access Analyzer	Creation date
<a href="#">riya-amazon-project</a>	US East (N. Virginia) us-east-1	<a href="#">View analyzer for us-east-1</a>	September 17, 2024, 13:11:37 (UTC+05:30)

Find buckets by name

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3. Click on the bucket you just created and upload the Amazon-Bestseller-Dataset.csv by clicking on Add Files option as shown below:

The screenshot shows the AWS S3 console interface. At the top, there's a navigation bar with the AWS logo, 'Services' dropdown, 'Search' bar, and account information ('N. Virginia', 'Riya\_aws'). Below the navigation bar, the path 'Amazon S3 > Buckets > riya-amazon-project' is displayed. The main area is titled 'riya-amazon-project' with a 'Info' link. A horizontal menu bar at the top of the main content includes 'Objects' (which is selected), 'Properties', 'Permissions', 'Metrics', 'Management', and 'Access Points'. Under the 'Objects' section, there's a sub-menu with options like 'Upload' (highlighted with a red box), 'Copy S3 URI', 'Copy URL', 'Download', 'Open', 'Delete', 'Actions', and 'Create folder'. Below this is a search bar labeled 'Find objects by prefix'. A table header for 'Objects (0)' includes columns for 'Name', 'Type', 'Last modified', 'Size', and 'Storage class'. A message below the table states 'No objects' and 'You don't have any objects in this bucket.' At the bottom of the page, there's a footer with links for 'CloudShell', 'Feedback', and copyright information ('© 2024, Amazon Web Services, Inc. or its affiliates.'), along with 'Privacy', 'Terms', and 'Cookie preferences'.

The second part of the screenshot shows the 'Upload' interface. The path 'Amazon S3 > Buckets > riya-amazon-project > Upload' is visible. The title is 'Upload' with an 'Info' link. A large callout box contains the text: 'Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. Learn more'. Below this is a dashed blue rectangular area with the text 'Drag and drop files and folders you want to upload here, or choose Add files or Add folder.' A 'Files and folders (0)' table has a 'Remove' button and 'Add files' and 'Add folder' buttons. The 'Add files' button is also highlighted with a red box. The table has a search bar 'Find by name' and columns for 'Name', 'Folder', and 'Type'. A message below the table says 'No files or folders' and 'You have not chosen any files or folders to upload.' The footer is identical to the first screenshot.

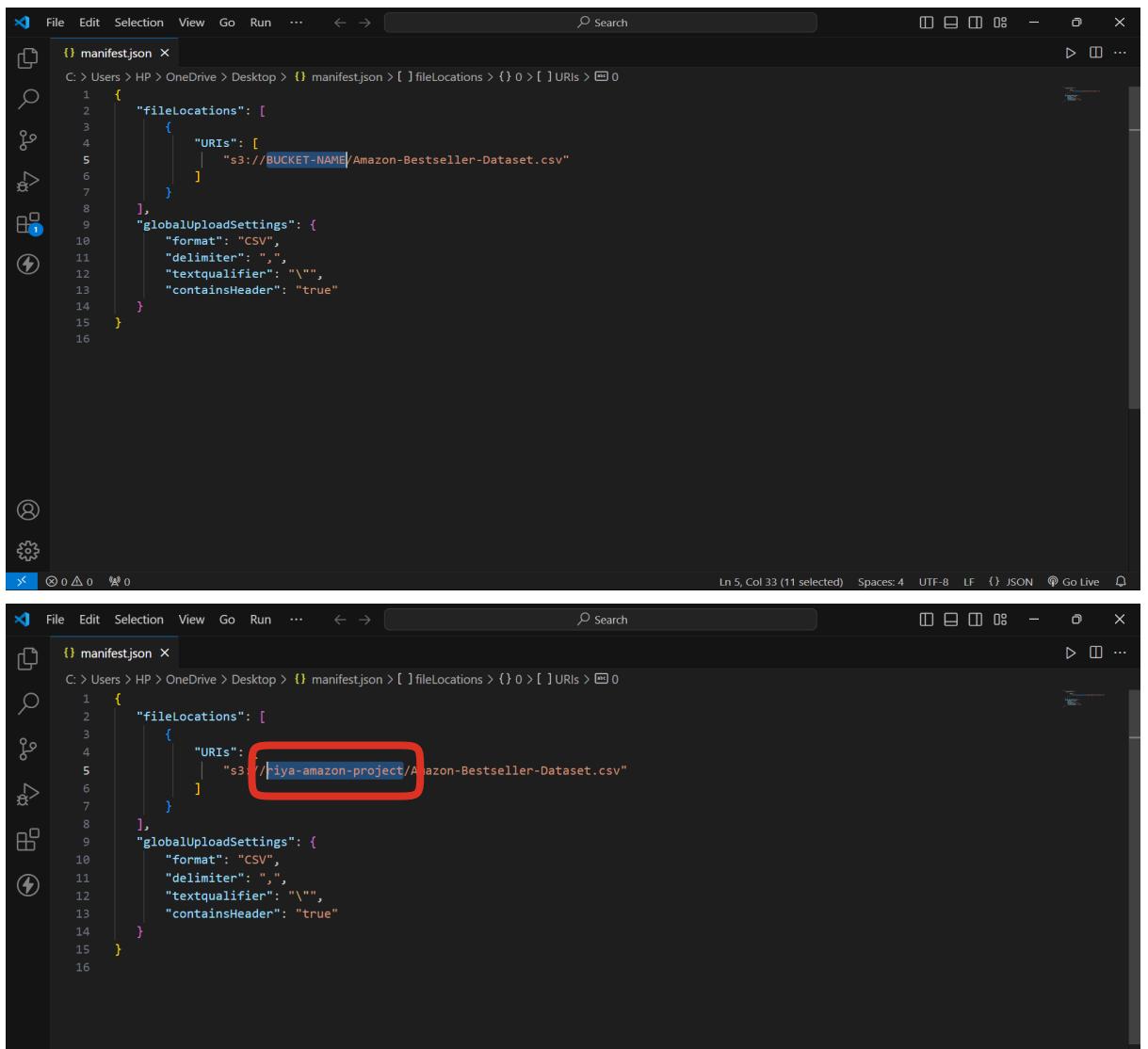
The screenshot shows the AWS S3 'Upload' interface. At the top, the navigation bar includes 'Services', a search bar, and region information ('N. Virginia'). Below the navigation is a breadcrumb trail: 'Amazon S3 > Buckets > riya-amazon-project > Upload'. The main area is titled 'Upload' with a sub-section 'Info'. A note says: 'Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. [Learn more](#)'.

A large dashed box highlights a central area where files can be dragged and dropped or added via 'Add files' or 'Add folder'. Below this is a table titled 'Files and folders (1 Total, 14.1 MB)'. It lists 'Amazon-Bestseller-Dataset.csv' as a 'text/csv' file. A red box highlights this row. Buttons for 'Remove', 'Add files', and 'Add folder' are at the top of the table.

The 'Destination' section shows the target location as 's3://riya-amazon-project'. The progress bar indicates the upload is 1% complete. The status message says: 'Total remaining: 1 file: 14.0 MB (99.33%)' and 'Estimated time remaining: 6 minutes'. Transfer rate is listed as '41.5 KB/s'.

At the bottom, tabs for 'Files and folders' and 'Configuration' are visible, along with the standard AWS footer.

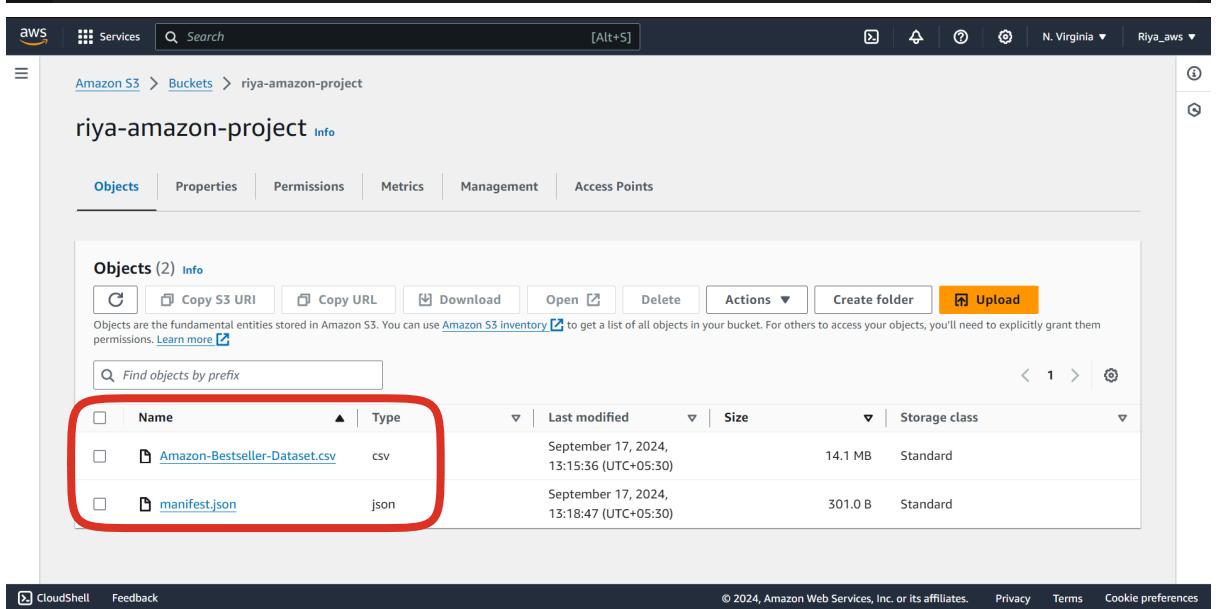
Meanwhile perform the following changes in the manifest file:  
Instead of the BUCKET-NAME put your BUCKET-NAME ex. riya-amazon-project in my case. And then upload it the same as we did for the csv file.



```

manifest.json
C: > Users > HP > OneDrive > Desktop > manifest.json > [ ] fileLocations > {} 0 > [ ] URIs > 0
1 {
2   "fileLocations": [
3     {
4       "URIs": [
5         "s3://BUCKET-NAME/Amazon-Bestseller-Dataset.csv"
6       ]
7     }
8   ],
9   "globalUploadSettings": {
10     "format": "CSV",
11     "delimiter": ",",
12     "textqualifier": "\"",
13     "containsHeader": "true"
14   }
15 }
16

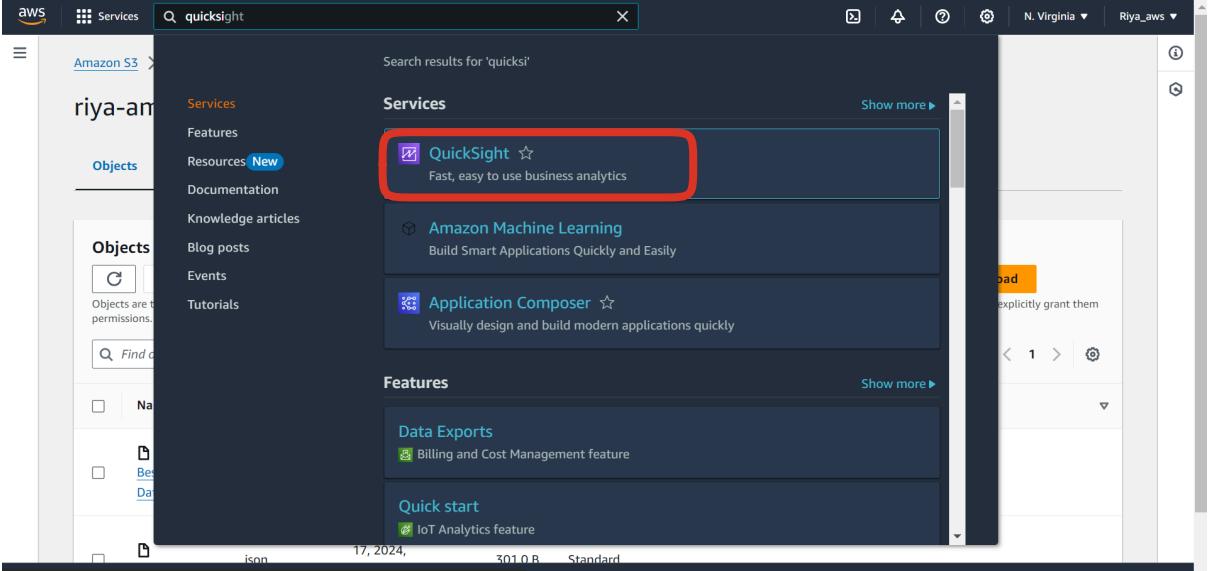
```

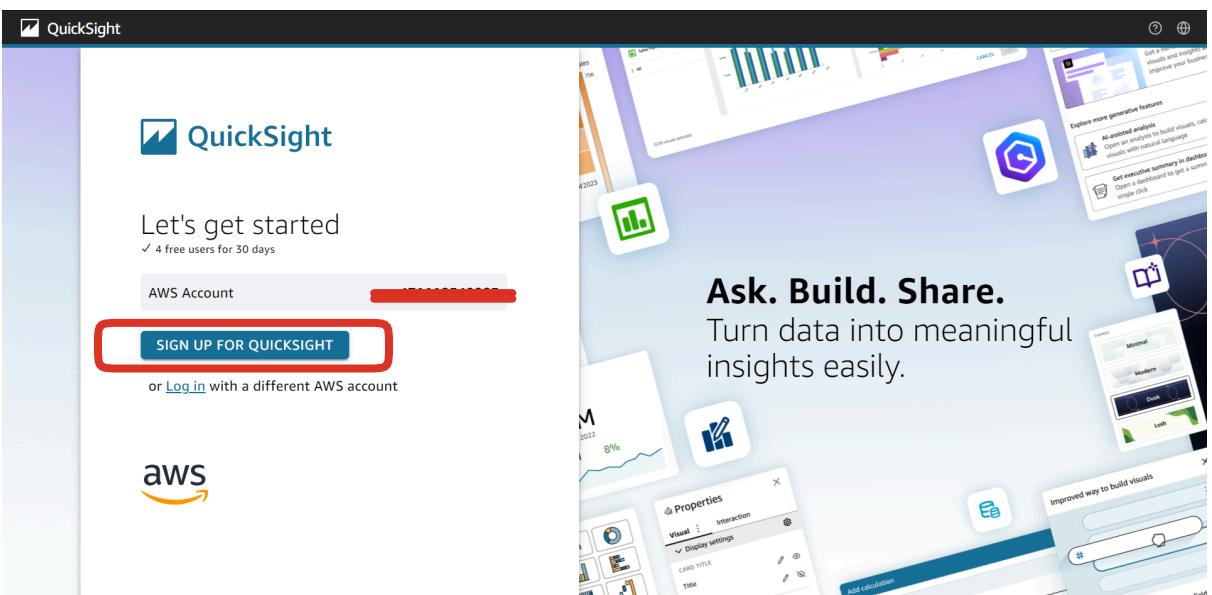
Name	Type	Last modified	Size	Storage class
Amazon-Bestseller-Dataset.csv	csv	September 17, 2024, 13:15:36 (UTC+05:30)	14.1 MB	Standard
manifest.json	json	September 17, 2024, 13:18:47 (UTC+05:30)	301.0 B	Standard

- Keep the tab of S3 bucket open and now go to QuickSight using another tab so that we can easily work on them side by side. Let's go to our QuickSight account now. Sign Up for the QuickSight account → Give a suitable account name ex.

*riya-quicksight* (in my case). Keep the rest settings the same just do not forget to select the checkbox of Amazon S3 bucket and select your bucket and click finish. Wait till your account gets created ~~successfully~~.



The screenshot shows the AWS CloudSearch search results page. A search query 'quicksight' has been entered into the search bar. The results are displayed under the 'Services' section. The 'Quicksight' card is highlighted with a red box. It features a purple icon, the text 'Quicksight', a star rating, and the tagline 'Fast, easy to use business analytics'. Below this, there are other service cards for 'Amazon Machine Learning' and 'Application Composer'.

The screenshot shows the QuickSight sign-up page. The 'AWS Account' field contains a placeholder 'AWS Account'. Below it is a large blue button labeled 'SIGN UP FOR QUICKSIGHT', which is also highlighted with a red box. There is also a link 'or [Log in](#) with a different AWS account'. The page features a prominent 'aws' logo at the bottom left. On the right side, there is a promotional banner with the text 'Ask. Build. Share. Turn data into meaningful insights easily.' and several icons representing different features like AI-assisted analysis, executive summaries, and improved visual building.

Authentication method

Use IAM federated identities & QuickSight-managed users  
Authenticate with single sign-on (SAML or OpenID Connect), AWS IAM credentials, or QuickSight credentials

Use AWS IAM Identity Center  
Authenticate using AWS IAM Identity Center  
[Manage access to QuickSight by assigning users and groups from IAM Identity Center. Learn more](#)

Use IAM federated identities only  
Authenticate with single sign-on (SAML or OpenID Connect) or AWS IAM credentials

Use Active Directory  
Authenticate with Active Directory credentials

QuickSight region

Select a region [?](#)

US East (N. Virginia) [▼](#)

Account info

QuickSight account name [?](#)  
You will need this for you and others to sign in

riya-quicksight

IAM Role

Use QuickSight-managed role (default)

Use an existing role

Allow access and autodiscovery for these resources

 Amazon Redshift

 Amazon RDS

 IAM

 Amazon S3  
[Select S3 buckets](#)

 Amazon Athena  
Make sure you've chosen the right Amazon S3 buckets for QuickSight access

 Amazon S3 Storage Analytics

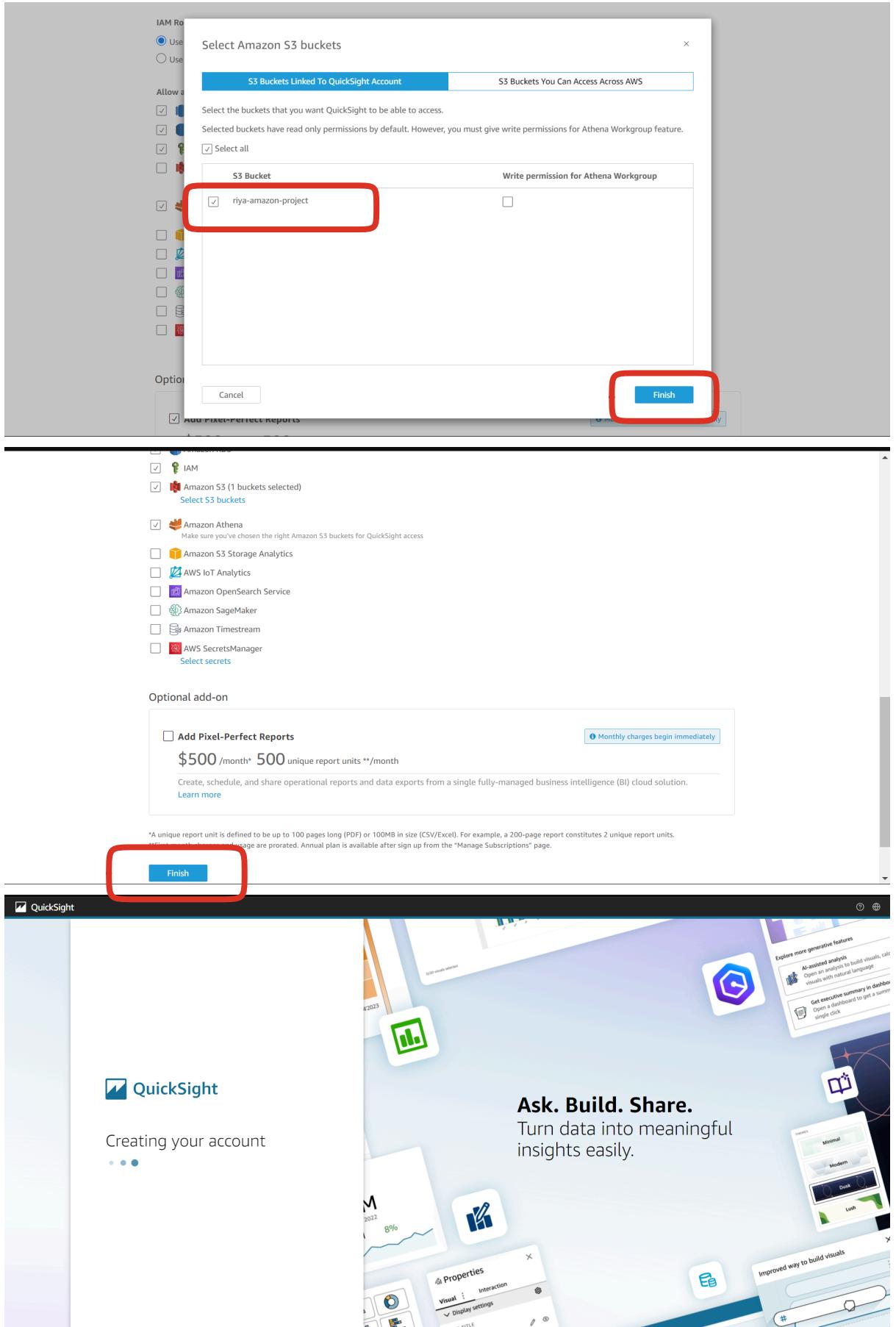
 AWS IoT Analytics

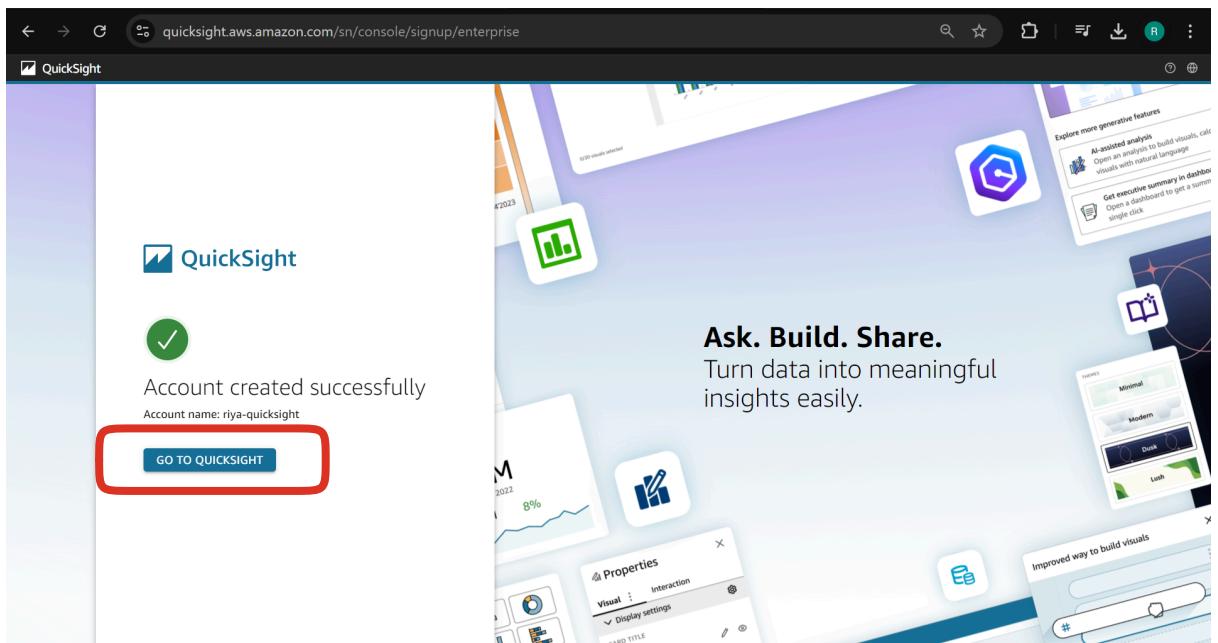
 Amazon OpenSearch Service

 Amazon SageMaker

 Amazon Timestream

 AWS SecretsManager  
[Select secrets](#)





The screenshot shows the main dashboard of the QuickSight console. On the left, there is a sidebar with navigation options: "Favorites", "Recent", "My folders", "Shared folders", "Dashboards", "Data stories", "Analyses" (which is selected and highlighted with a red box), and "Topics". The main area displays four sample analyses: "People Overview analysis" (pie chart), "Business Review analysis" (line chart), "Web and Social Media Anal..." (bar chart), and "Sales Pipeline analysis" (bar chart). Each analysis card includes a "SAMPLE" button, a star icon, and a more options menu. At the top right, there are buttons for "Last updated (newest first)", "New analysis", and a grid icon. A search bar is located at the top center.

Choose the dataset option → then S3 option. Now go back to your S3 bucket page, click on manifest.json file and copy the S3 URI and paste it on the QuickSight tab as shown and then connect and visualise.

The image shows two screenshots of the Amazon QuickSight console. The top screenshot displays the 'Datasets' page with a list of existing datasets. A red box highlights the 'New dataset' button in the top right corner. The bottom screenshot shows the 'Create a Dataset' wizard, specifically the 'FROM NEW DATA SOURCES' section. A red box highlights the 'S3' data source option.

**Datasets**

Name	Owner	Last Modified
Web and Social Media Analytics	SPICE Me	a minute ago
Business Review	SPICE Me	a minute ago
People Overview	SPICE Me	a minute ago
Sales Pipeline	SPICE Me	a minute ago

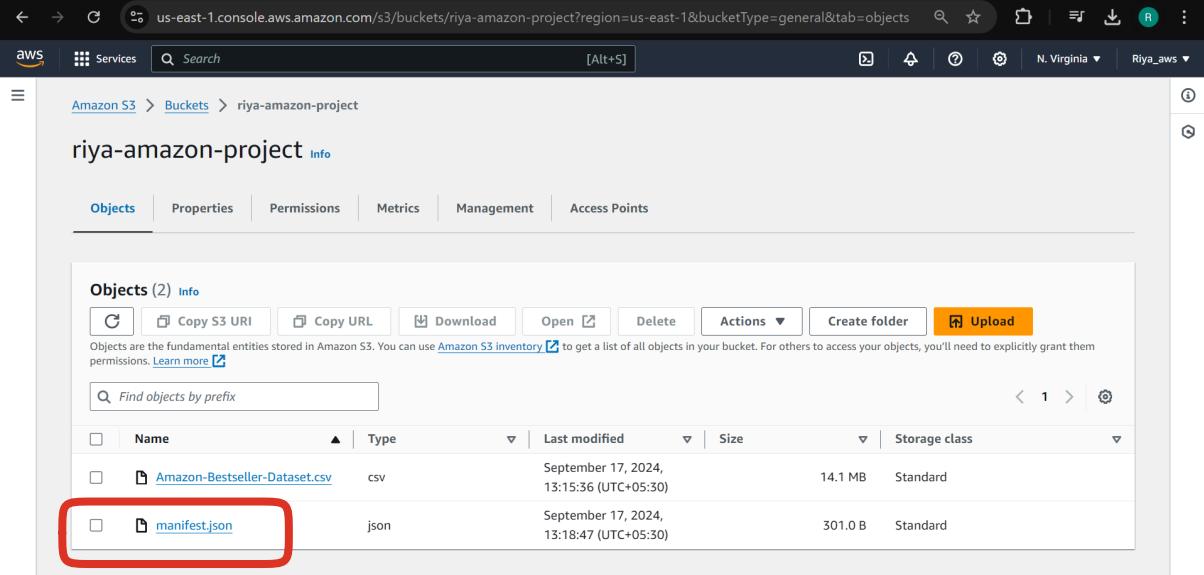
New dataset

**Create a Dataset**

FROM NEW DATA SOURCES

- Upload a file (.csv, .tsv, .clf, .elf, .xlsx, .json)
- Salesforce Connect to Salesforce
- S3 Analytics
- S3** (S3) Red box
- Athena
- RDS
- Redshift Auto-discovered
- Redshift Manual connect
- MySQL

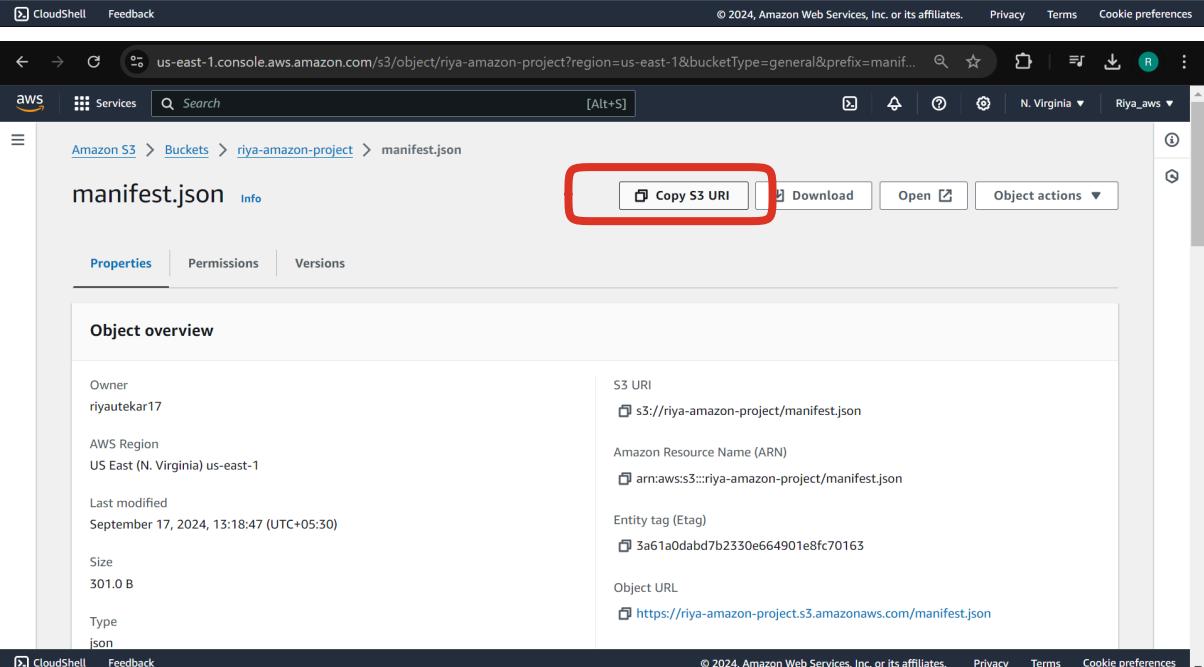
SPICE capacity for this region: Auto-purchase enabled



The screenshot shows the AWS S3 console interface. At the top, the URL is `us-east-1.console.aws.amazon.com/s3/buckets/riya-amazon-project?region=us-east-1&bucketType=general&tab=objects`. The navigation bar includes 'Amazon S3', 'Services', 'Search', and 'N. Virginia'. The main content area shows the 'Objects' tab selected. There are two objects listed:

Name	Type	Last modified	Size	Storage class
<a href="#">Amazon-Bestseller-Dataset.csv</a>	csv	September 17, 2024, 13:15:36 (UTC+05:30)	14.1 MB	Standard
<a href="#">manifest.json</a>	json	September 17, 2024, 13:18:47 (UTC+05:30)	301.0 B	Standard

A red box highlights the 'manifest.json' row.

The screenshot shows the details for the 'manifest.json' object. The top navigation bar has the URL `us-east-1.console.aws.amazon.com/s3/object/riya-amazon-project?region=us-east-1&bucketType=general&prefix=manif...`. The object name is 'manifest.json'. The 'Properties' tab is selected. The 'Object overview' section contains the following details:

Owner	S3 URI
riyautekar17	<a href="s3://riya-amazon-project/manifest.json">s3://riya-amazon-project/manifest.json</a>
AWS Region	Amazon Resource Name (ARN)
US East (N. Virginia) us-east-1	<a href="arn:aws:s3:::riya-amazon-project/manifest.json">arn:aws:s3:::riya-amazon-project/manifest.json</a>
Last modified	Entity tag (Etag)
September 17, 2024, 13:18:47 (UTC+05:30)	<a href="3a61a0dabd7b2330e664901e8fc70163">3a61a0dabd7b2330e664901e8fc70163</a>
Size	Object URL
301.0 B	<a href="https://riya-amazon-project.s3.amazonaws.com/manifest.json">https://riya-amazon-project.s3.amazonaws.com/manifest.json</a>
Type	
json	

A red box highlights the 'Copy S3 URI' button.

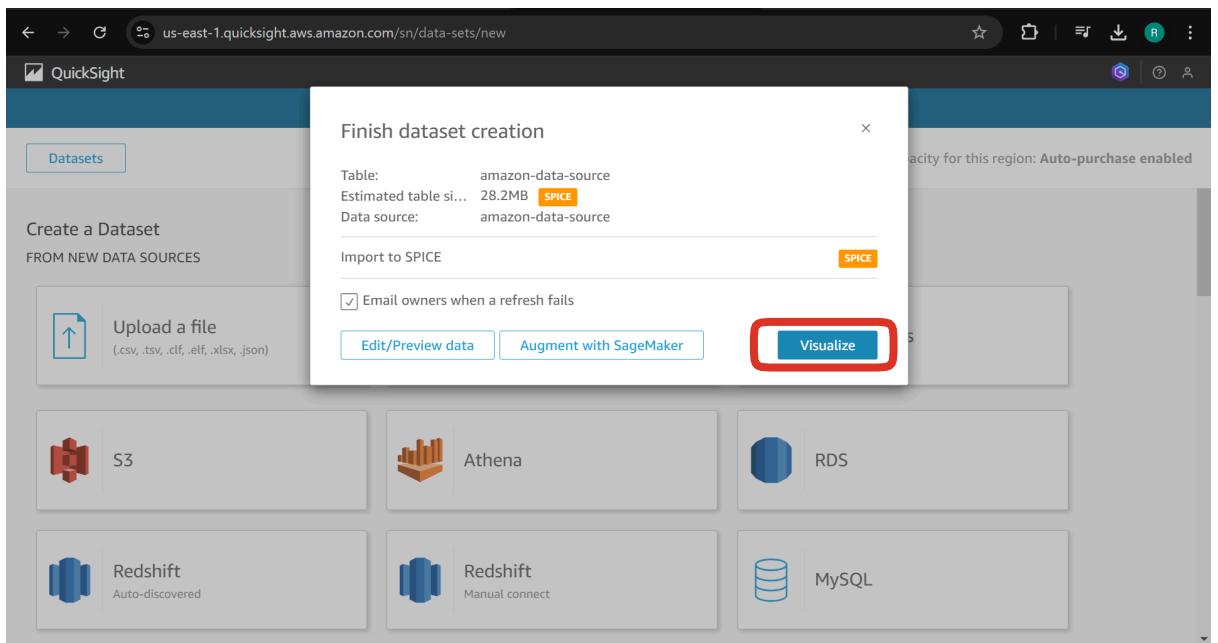
The screenshot displays two overlapping AWS service interfaces: S3 and QuickSight.

**AWS S3 Interface (Top):**

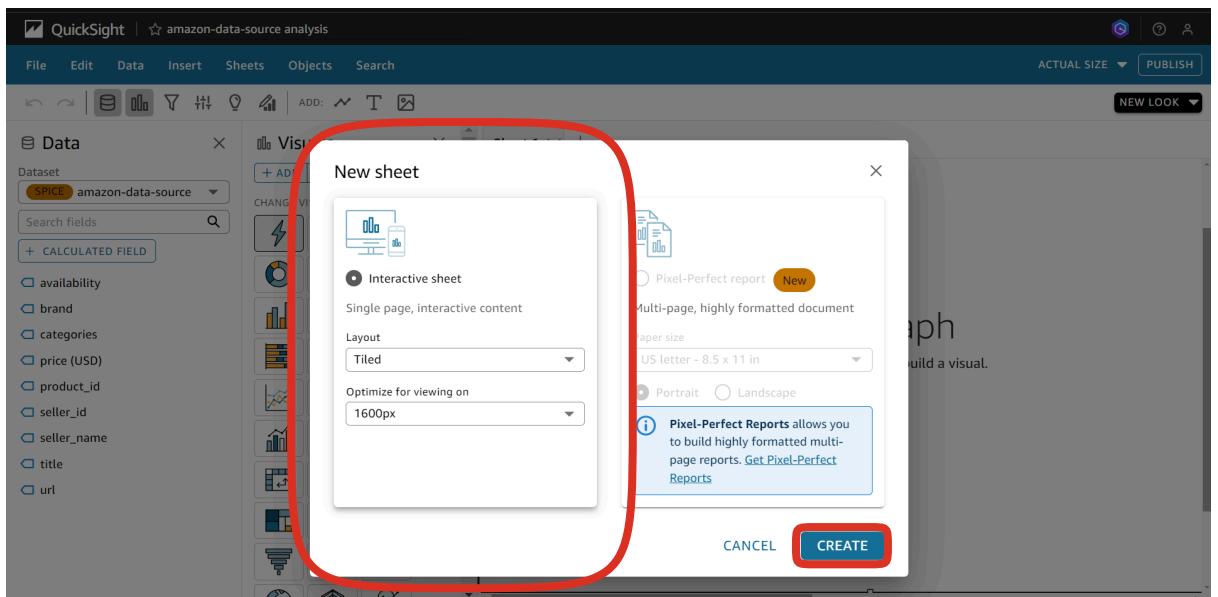
- Shows the file `manifest.json` in the bucket `riya-amazon-project`.
- Contains standard S3 object details like Owner, AWS Region, Last modified, Size, and Type.
- Includes S3 URI (`s3://riya-amazon-project/manifest.json`), ARN (`arn:aws:s3:::riya-amazon-project/manifest.json`), Entity tag (Etag) (`3a61a0dabd7b2330e664901e8fc70163`), and Object URL (`https://riya-amazon-project.s3.amazonaws.com/manifest.json`).
- Buttons for **Copy S3 URI**, **Download**, **Open**, and **Object actions**.
- A message box indicates **S3 URI copied**.

**Quicksight Interface (Bottom):**

- Shows the `New S3 data source` dialog.
- Fields include **Data source name** (`amazon-data-source`) and **Upload a manifest file** (`s3://riya-amazon-project/manifest.json`).
- Options for **URL** () and **Upload** () are shown.
- A **Connect** button is highlighted with a red box.
- Background elements show other data sources: S3, Athena, RDS, Redshift (Auto-discovered), Redshift (Manual connect), and MySQL.



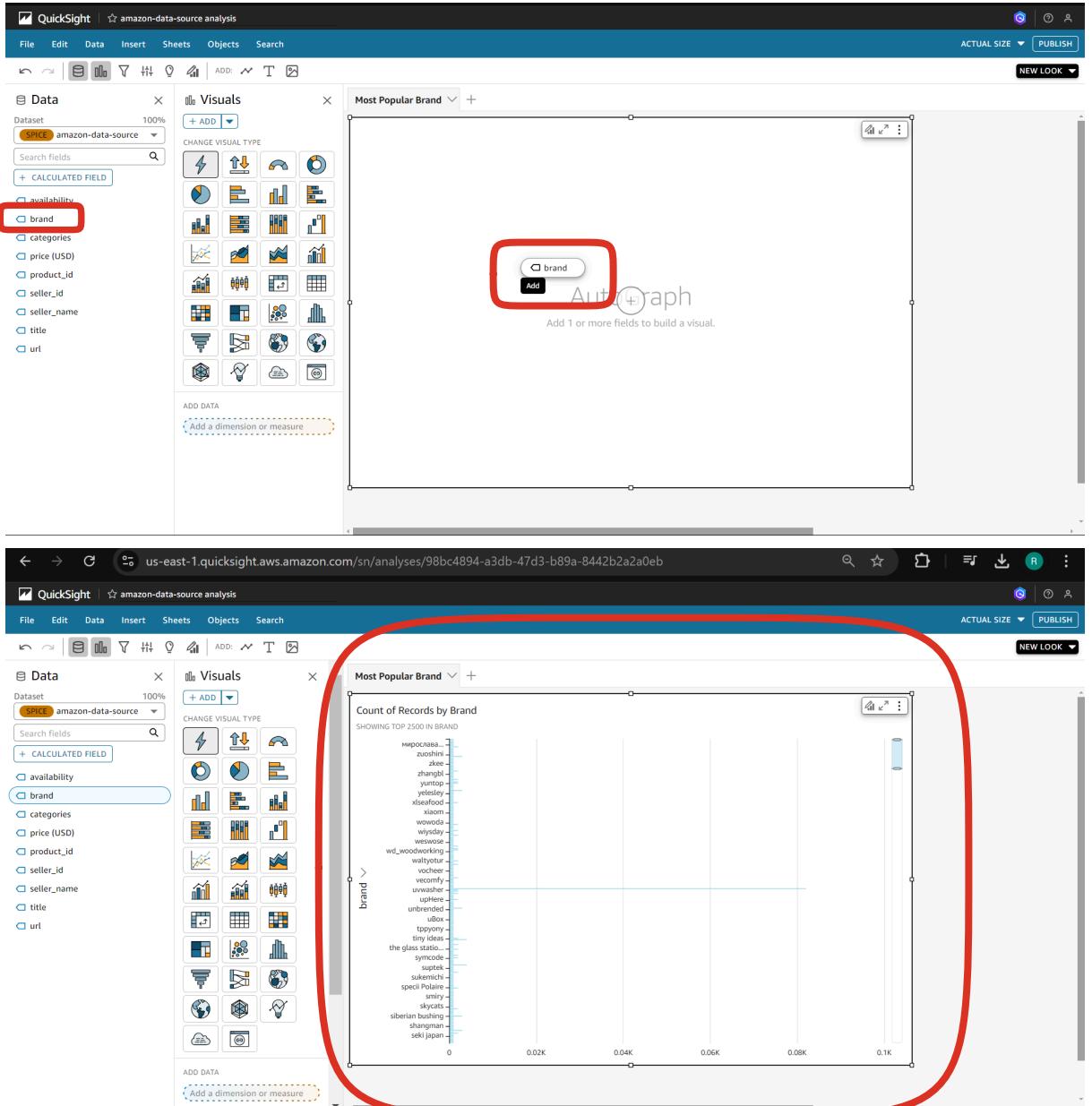
Click on the CREATE option



We are done now!! From the list on the left, you can always do a drag-and-drop to create your visualisations. I did select Brand, just to see how the visual looks:

The screenshot shows the QuickSight interface for creating a data analysis. On the left, the 'Data' panel is open, displaying a dataset named 'amazon-data-source' with various fields listed: availability, brand, categories, price (USD), product\_id, seller\_id, seller\_name, title, and url. A red box highlights this panel. To the right, the 'Visuals' panel is open, showing a grid of visualization icons. Below it, a large workspace labeled 'Sheet 1' contains the text 'AutoGraph' and the instruction 'Add 1 or more fields to build a visual.'.

This screenshot shows the same QuickSight interface as above, but with a specific change: the 'Visuals' panel has a dropdown menu at the top set to 'Most Popular Brand'. A red box highlights this dropdown. The rest of the interface remains the same, with the Data panel on the left and the workspace on the right.



All right!! Everything is done and said, if you are doing the demo alone, make sure you delete all the resources created to save your money!! Else, a bill will be generated for sure :)  
 Happy Learning!!