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1. Buscar (ex. Catálogo da INDE) pelo menos dois conjuntos de dados de interesse para o seu trabalho indicando como estão disponíveis para acesso
 - a. Quais serviços? Quais as URL's dos serviços?

ANP - Agência Nacional do Petróleo, Gás Natural e Biocombustíveis	WMS	WFS	WCS	Mapas
BNDES - Banco Nacional de Desenvolvimento Econômico e Social	WMS	WFS	WCS	Mapas
CENSIPAM - Centro Gestor e Operacional do Sistema de Proteção da Amazônia	WMS	WFS	WCS	Mapas
CMR/Funai - Centro de Monitoramento Remoto	WMS	WFS	WCS	Mapas

- **Agência Nacional do Petróleo, Gás Natural e Biocombustíveis**
 - WMS:
<https://gishub.anp.gov.br/geoserver/ows?service=wms&version=1.3.0&request=GetCapabilities>
 - WFS:
<https://gishub.anp.gov.br/geoserver/ows?service=wfs&version=1.3.0&request=GetCapabilities>
 - WCS:
<https://gishub.anp.gov.br/geoserver/ows?service=WCS&version=1.3.0&request=GetCapabilities>
- **Banco Nacional de desenvolvimento econômico e Social**
 - WMS:
<https://geoservicos.inde.gov.br/geoserver/BNDES/ows?service=wms&version=1.3.0&request=GetCapabilities>
 - WFS:
<https://geoservicos.inde.gov.br/geoserver/BNDES/ows?service=wfs&version=1.3.0&request=GetCapabilities>
 - WCS:
<https://geoservicos.inde.gov.br/geoserver/BNDES/ows?service=WCS&version=1.3.0&request=GetCapabilities>
- **Centro Gestor e Operacional do Sistema de Proteção da Amazônia**
 - WMS:
<https://panorama.sipam.gov.br/geoserver/publico/ows/?service=wms&version=1.3.0&request=GetCapabilities>
 - WFS:
<https://panorama.sipam.gov.br/geoserver/publico/ows/?service=wfs&version=1.3.0&request=GetCapabilities>
 - WCS:
<https://panorama.sipam.gov.br/geoserver/publico/ows/?service=WCS&version=1.3.0&request=GetCapabilities>
- **Centro de Monitoramento Remoto**
 - WMS:
<https://cmr.funai.gov.br/geoserver/ows?service=wms&version=1.3.0&request=GetCapabilities>
 - WFS:
<https://cmr.funai.gov.br/geoserver/ows?service=wfs&version=1.3.0&request=GetCapabilities>

- WCS:

<https://cmr.funai.gov.br/geoserver/ows?service=WCS&version=1.3.0&request=GetCapabilities>

2. Interagir com o serviço STAC do disponível em <https://data.inpe.br/>

a. Identificar quais as coleções são oferecidas

The screenshot displays a grid of 24 data collection cards. Each card includes a title, a brief description, a 'COG' icon, and a timestamp. The collections include:

- AMAZONIA-1/WFI - Level-4-SR - Cloud Optimized GeoTIFF
- CBERS-4/WFI - Level-4-SR - Cloud Optimized GeoTIFF
- CBERS-4A/WPM - Multispectral and Panchromatic Bands Fused
- MOD13Q1 v006 - Cloud Optimized GeoTIFF
- Sentinel-2 - Level-1C
- Sentinel-2/MSI - Level-2A - Data Cube - LCF 16 days
- CBERS-4/MUX - Level-4-SR - Cloud Optimized GeoTIFF
- CBERS-4/WFI - Level-4-SR - Data Cube - LCF 16 days
- CBERS/WFI - Level-4-SR - Data Cube - LCF 8 days
- MYD13Q1 v006 - Cloud Optimized GeoTIFF
- Sentinel-2 - Level-2A
- Sentinel-3/OLCI - Level-1B Full Resolution
- CBERS-4/MUX - Level-4-SR - Data Cube - LCF 2 months
- CBERS-4A/WFI - Level-4-SR - Cloud Optimized GeoTIFF
- Landsat Collection 2 - Level-2 Level-2 Science Products
- Sentinel-1 - Level-1 Interferometric Wide Swath Ground Range Detected High Resolution
- Sentinel-2 - Level-2A - Cloud Optimized GeoTIFF
- Sentinel-2 Image Mosaic of Brazilian Cerrado Biome - 2 Months
- Landsat Collection 2 - Level-2 - Data Cube - LCF 16 days

b. Listar os itens disponíveis em uma coleção de seu interesse e uma área de seu interesse

- Coleção

The screenshot shows the STAC interface for the 'AMAZONIA_1_WFI' collection. On the left, the 'Description' and 'Metadata' sections are visible. The 'Description' includes the license (Creative Commons Attribution 4.0 International) and a world map showing the collection's extent in South America. The 'Metadata' section includes general information (Data Version: 1, GSD: 64 m, Platform: amazonia-1) and BDC (Bands, Data Cube) details (Type: collection, Public: checked, Grs: AMAZONIA_1_WFI_GRID, View Geometry: Off-Nadir: 0°).

On the right, the 'Items' section displays a grid of 9 satellite imagery thumbnails, each with a title and a timestamp. The items are:


- AMAZONIA_1_WFI_20240130_037_018
- AMAZONIA_1_WFI_20240130_037_022
- AMAZONIA_1_WFI_20240131_035_019
- AMAZONIA_1_WFI_20240130_037_019
- AMAZONIA_1_WFI_20240130_052_006
- AMAZONIA_1_WFI_20240131_035_020
- AMAZONIA_1_WFI_20240130_037_020
- AMAZONIA_1_WFI_20240130_052_008
- AMAZONIA_1_WFI_20240131_040_014

Itens

Assets in Items

> Band blue	DATA COG
> Band green	DATA COG
> Band red	DATA COG
> Band nir	DATA COG
> Band cmask	DATA COG
> Thumbnail	THUMBNAIL PNG

- Área



Assets

> BAND1	THUMBNAIL DATA COG
> BAND2	DATA COG
> BAND3	DATA COG
> BAND4	DATA COG
> CMASK	DATA COG
> thumbnail	THUMBNAIL PNG

Collection

AMAZONIA-1/WFI - Level-4-SR - Cloud Optimized GeoTIFF
AMAZONIA-1/WFI Surface Reflectance product over Brazil. L4 SR product provides orthorectified surface reflectance images. This dataset is provided as Cloud Optimized GeoTIFF (COG).
1/1/2024, 12:00:00 AM UTC - 1/31/2024, 12:00:00 AM UTC

Metadata

General

Time of Data	1/27/2024, 12:00:00 AM UTC
Time of Data begins	1/27/2024, 12:00:00 AM UTC
Time of Data ends	1/27/2024, 12:00:00 AM UTC
Created	3/8/2024, 7:08:58 PM UTC
Updated	3/8/2024, 7:08:58 PM UTC

Electro-Optical

Cloud Cover	n/a
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3. Onde você pode encontrar as Bases cartográficas contínuas – Brasil, do IBGE? Para download e por serviços.

<https://www.ibge.gov.br/geociencias/cartas-e-mapas/bases-cartograficas-continuas.html>

<https://geoservicos.ibge.gov.br/geoserver/web/?jsessionid=F2871691FC7385B8AEE1E703C4945A2E>