Space Business Innovation Challenge

Free Satellite Data Links and Resources

Free Satellite Data Sources:

1. Copernicus EU Website
    a. Access here: browser.dataspace.copernicus.eu
    b. Types of Data Available:
        i. Satellite imagery and datasets (Sentinel satellites)
            1. Optical
            2. Radar
            3. Atmospheric
            4. Ocean
            5. Climate
    c. Example use cases:
        i. Atmospheric, land, coastal, marine, agricultural monitoring
    d. Additional resources:
        i. https://www.copernicus.eu/en/news/news/observer-space-your-screen-8-applications-improve-business-and-everyday-life-copernicus
        ii. https://sentinels.copernicus.eu/web/success-stories/-/empowering-agriculture-in-mauritania-with-sentinel-2-the-techghilagro-success-story
        iii. https://sentinels.copernicus.eu/web/success-stories/-/copernicus-sentinel-2-leads-precision-farming-into-new-era
        iv. https://www.copernicus.eu/en/news/news/observer-empowering-entrepreneurs-grow-their-business-and-reach-new-heights
        v. Introduction to the Copernicus Data Space Ecosystem and Copernicus Browser
            1. You may find more videos under this YouTube channel: https://www.youtube.com/@copernicusdataspaceecosystem
        vi. You may also see the user guide made by PhilSA here: 2025.09.10_SBIC Manual_v1
2. NASA Worldview
    a. Access here: https://worldview.earthdata.nasa.gov/
    b. Types of Data Available:
        i. Global satellite imagery (MODIS, VIIRS, Landsat, etc.)
        ii. Natural hazard monitoring, climate and atmosphere, land data, ocean and cryosphere
    c. Example use cases:
        i. Disaster monitoring
        ii. Environmental monitoring
        iii. Agriculture and water resource tracking
        iv. Climate change visualization

   d. Additional Resources:
      i. Getting Started with NASA Worldview
         1. Other references can be found under this YouTube channel:
            a. https://www.youtube.com/@NASAEarthdata/videos

3. USGS Earth explorer
   a. Access here: https://earthexplorer.usgs.gov/
   b. Types of Data Available:
      i. Satellite imagery via Landsat series of satellites
      ii. Radar and Elevation Data
      iii. Aerial Photography
   c. Example Use Cases:
      i. Agriculture, forestry, water resources
      ii. Urban planning
      iii. Disaster Management
      iv. Climate and environment
4. ALOS
   a. Access here: https://www.eorc.jaxa.jp/ALOS/en/index_e.htm for general information. Access free data through ALOS World 3D here: https://www.eorc.jaxa.jp/ALOS/en/dataset/aw3d30/registration.htm
   b. Types of Data Available:
      i. ALOS series of satellites
         1. Optical imagery, advanced radar, weather imaging, elevation data
      ii. Topography and land use datasets
   c. Example use cases
      i. Disaster monitoring
      ii. Infrastructure and urban planning
      iii. Flood mapping in cloudy conditions
   d. Additional resources:
      i. You may also refer to the user guide made by PhilSA here: 2025.09.11_ DEM_Download_Manual_v1
5. OpenStreetMap
   a. Access Here: https://www.openstreetmap.org/
   b. Types of Data Available:
      i. GPS
      ii. Maps
         1. Roads, highways, railways, waterways
         2. Buildings, parks, forests, etc.
      iii. Community-input
      iv. Location information

   c. Example use cases:
      i. Mapping applications
      ii. Routing
      iii. Visualization
6. Google Earth
   a. Access Here: https://earth.google.com/web
   b. Types of Data Available:
      i. Optical imagery
      ii. Historical imagery
      iii. 3D terrain and buildings
      iv. GPS
      v. Maps
      vi. Location information
   c. Example use cases:
      i. 3D Maps for visualization
      ii. Business and real estate for site selection

