

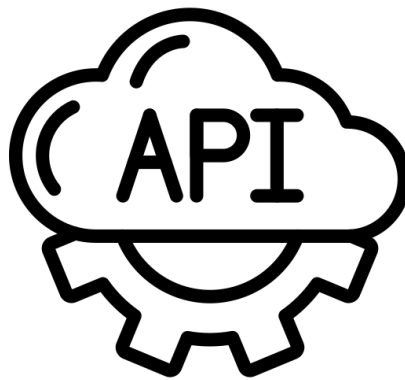


AIT
Asian Institute of Technology

School of Engineering & Technology

Asian Institute of Technology

AT82.03 - Machine Learning



Date: 17 October 2023

Group Project <Group 11>

Submitted To:

Dr. Chaklam Silpasuwanchai

Submitted By:

Mr. Gholamreza Izadi

Mr. Tairo Kageyama

Mr. Rojan Manandhar

Mr. Bakyt Tursaliev

Mr. Panithi Sirisatjapipat

Mr. Nitesh Ghimire

API 1: Music APIs (Shazam API, Genius API) (Panithi)

Description	This API enables users to identify any song and provides information about artists, lyrics, videos, and playlists.
Potential Applications	Create an application that generates motivational and insightful quotes using song lyrics. Users can input keywords or themes to tailor the quotes. Also, we can develop a service that sends users daily quotes generated from their favorite song lyrics
Related Industry	Existing Quote Generator Apps: Similar applications provide inspirational quotes, but this idea differentiates itself by using music lyrics, offering a unique perspective.
Impact	<ul style="list-style-type: none">- Music Enthusiasts: Benefit from discovering the profound meaning within their favorite songs.- Content Creators: Easily generate unique and engaging content for blogs, social media, or articles.
Value Propositions	<ul style="list-style-type: none">- Music Lyric Insight: Provide a fresh perspective by using song lyrics, creating a unique source of inspiration- Customized Quotes: Tailor quotes based on user input, making them highly relevant.- Engaging Content: Offer a tool for generating captivating and original content for various purposes.

<https://rapidapi.com/apidojo/api/shazam>

<https://rapidapi.com/Glavier/api/genius-song-lyrics1>

API 2: Recipes & Nutritional APIs (Panithi)

Description	This API provides access to a vast database of thousands of recipes, store-bought packaged foods, and chain restaurant menu items. It offers a powerful food ontology and semantic recipe search engine for natural language recipe queries. Users can calculate nutritional information for recipes, estimate recipe costs, visualize ingredient lists, find recipes based on available ingredients, special diets, nutritional requirements, and favorite ingredients.
Potential Applications	Nutritious and meal planning app that suggest meals, recipes, and nutritional facts based on the specific goals of the users i.e., dieting or gaining weight. Moreover, in the RapidAPI, it also has the keto as well as the vegan recipes API which we can add in the app allowing the users to choose the type of dietaries they want based on their personal preferences (ordinary, vegan, or animal-based diet).
Related Industry	The culinary and nutrition industries utilize similar features, but this

	API offers advanced recipe and nutrition capabilities.
Impact	<ul style="list-style-type: none"> - Food and recipe enthusiasts can access a wide range of recipes and nutrition information - Developers can enhance their applications with powerful food and nutrition features.
Value Propositions	<ul style="list-style-type: none"> - Comprehensive Recipe Database: Access a vast collection of recipes, foods, and menu items. - Nutrition Analysis: Provide precise nutritional information and visualization for recipes. - Dietary and Special Diet Support: Cater to various dietary requirements and preferences.

<https://rapidapi.com/spoonacular/api/recipe-food-nutrition>

<https://rapidapi.com/sorinmarica4/api/nutritional-data/>

<https://rapidapi.com/encurate/api/keto-diet/>

API 3: Health Calculator APIs (Panithi)

Description	This API provides various health and fitness calculations, including A Body Shape Index (ABSI), Adjusted Body Weight (AjBW), Basal Energy Expenditure (BEE), Total Energy Expenditure (TEE), Body Adiposity Index (BAI), Body Frame Size Index (BFSI), Body Mass Index (BMI), Body Fat Percentage, Basal Metabolic Rate (BMR), Daily Caloric Needs (DCN), Daily Water Intake (DWI), Estimated Average Glucose (eAG), Estimated Energy Requirement (EER), The FFMI (Fat-Free Mass Index), Target Heart Rate (THR), and more.
Potential Applications	Continue from the above API, this health calculator api can be used to improve the applications' suggestions to be more precisely with various healths and fitnesses calculations
Related Industry	Health and fitness technology platforms utilize similar calculations, but this API offers a wide range of health and fitness calculations.
Impact	<ul style="list-style-type: none"> - Users seeking health and fitness assessments can access a variety of calculations with precision and ease. - Developers can enhance their applications, websites, and projects with health and fitness features.
Value Propositions	<ul style="list-style-type: none"> - Comprehensive Health Calculations: Offer a wide range of health and fitness assessments for users. - Precision and Ease: Provide precise insights into health and well-being.

<https://rapidapi.com/kidddevs/api/health-calculator-api/>

<https://rapidapi.com/genez-io-genez-io-default/api/ bespoke-diet-generator/>

API 4: Relationship APIs (Panithi)

Description	This API calculates the compatibility of two individuals for a long-term romantic relationship using western psychological astrology. It assesses various aspects of compatibility, including attraction, emotional harmony, mental agreement, relationship durability, support for life paths, and suitability for having children.
Potential Applications	Building the dating application can actually be challenging, since there are so many of this kind of application. Therefore, this Astro Macher API can help us add some unique points by helping the users to be matched and inform their decisions more easily based on calculated points of their astrological compatibility for romantic relationships.
Related Industry	Astrology and relationship advice platforms utilize astrological compatibility assessments.
Impact	<ul style="list-style-type: none">- Individuals seeking romantic partners can make informed choices.- Couples can assess the strengths and challenges in their relationships.
Value Propositions	<ul style="list-style-type: none">- Compatibility Assessment: Provides a comprehensive assessment of romantic compatibility.- Enhanced Accuracy: Utilizes a unique zodiac period system for increased accuracy.

<https://rapidapi.com/AstroMatcherAPI/api/astro-matcher-api/>

API 5: Individuals using the Internet worldwide (Rojan)

Description	Avira URL Safety Cloud is essential to Avira's complete security solutions, providing real-time URL classification and security checks for online resources. This service is critical in guaranteeing online safety since it categorizes numerous sorts of URLs (Websites, Domains, IPs, Service URLs, mail, links) into well-understood classes such as Safe, Malware, Phishing, Spam, and PUA/PUP.
Potential Applications	<p>Internet Browsing Security: The principal application is in web browsers and security software to alert users in real-time about potentially dangerous websites, assisting them in avoiding malware, phishing scams, spam, and unwanted software downloads.</p> <p>Email Security: This service allows email clients to scan email links to ensure users do not click on dangerous links or download harmful attachments.</p>

	Enterprise Security: Avira URL Safety Cloud can be linked to corporate network infrastructure to prevent employees from viewing potentially hazardous websites, enhancing the organization's cybersecurity.
Related Industry	Avira URL Safety Cloud is a critical technology in the cybersecurity industry, assisting in identifying and mitigating online dangers.
Impact	<p>Enhanced Security: The service dramatically improves internet users' security by performing real-time URL evaluations and protects them from harmful websites, malware, phishing assaults, spam, and possibly unwanted applications.</p> <p>Reduced Cyber Threats: By categorizing URLs and making this information available via an API, it is possible to lessen the risks connected with dangerous web content and links.</p>
Value Propositions	<p>Enhanced Security: The service dramatically improves internet users' security by performing real-time URL evaluations and protects them from harmful websites, malware, phishing assaults, spam, and possibly unwanted applications.</p> <p>Reduced Cyber Threats: By categorizing URLs and making this information available via an API, it is possible to lessen the risks connected with dangerous web content and links.</p>

<https://rapidapi.com/AstroMatcherAPI/api/astro-matcher-api/>

<https://rapidapi.com/ip2location/api/ip2location-ip-geolocation-web-service/>

API 6: Employment Rate (Rojan)

Description	dealSpot provides a complete API for hyperlocal employment information and geometric data at multiple geographic scales in the United States. This information is highly precise, comprehensive, and often updated. It enables users to acquire information on economic aspects, pay and wage statistics, household income, and other topics at various geographic levels, ranging from small areas such as Census blocks to larger territories such as states and core-based statistical areas.
Potential Applications	<p>Business Expansion and Location Analysis: Businesses can use this API to examine potential expansion sites' economic and employment circumstances. This is critical for making informed judgments on future branch or store openings.</p> <p>Commercial Real Estate: The API might be useful for commercial real estate companies trying to understand local labor markets and economic situations to entice tenants or buyers.</p>

	Market Research: For academic or market research reasons, researchers can use this data to examine area employment rates, compensation levels, and household incomes.
Related Industry	.Economic Analysis and Real Estate: The API is especially useful for companies that rely on precise economic and employment data for market analysis, site selection, and real estate development.
Impact	<p>Informed Decision-Making: Businesses and organizations can make data-driven decisions on where to expand based on employment rates and local economic realities.</p> <p>Economic Growth: IdealSpot's data can help drive economic growth by assisting organizations and government bodies in attracting enterprises and supporting local development.</p> <p>Market Competitiveness: By choosing locations with favorable conditions for their industry, businesses can achieve a competitive advantage by understanding hyperlocal employment and economic statistics.</p>
Value Propositions	<p>Precision: Because the API provides highly exact and up-to-date data, users can make informed decisions based on the most recent information.</p> <p>Users can query data at several geographic scales, examining employment rates and economic circumstances at the micro and macro levels based on their needs.</p> <p>Users can obtain a competitive advantage in their particular sectors by making wiser location and market-related decisions with access to specialized economic data sets.</p>

<https://rapidapi.com/idealspot-inc-idealspot-inc-default/api/idealspot-employment-salary-and-income/>
<https://rapidapi.com/lgorMicrobilt/api/employment-search/>

API 7: Urban Population Growth (Rojan)

Description	The API provides information on key aspects of countries such as population total, female population percentage, male population percentage, rural population, urban population, population growth, population density, GDP, unemployment rate, inflation rate, current account balance, poverty, reserves, and military spending. This enables consumers to comprehend these crucial regions' relative positions and trends.
Potential Applications	<p>TBusiness Expansion and Location Analysis: This API allows businesses to examine potential expansion sites' economic and employment circumstances. This is critical for making informed judgments on future branch or store openings</p> <p>Commercial Real Estate: The API might be useful for commercial real estate companies trying to understand local labor markets and economic situations to entice tenants or buyers</p> <p>Economic development groups and government agencies can use</p>

	this data to make informed judgments about luring firms and investments to specific areas.
Related Industry	Economic Analysis and Real Estate: The API is especially useful for companies that rely on precise economic and employment data for market analysis, site selection, and real estate development.
Impact	<p>Informed Decision-Making: Businesses and organizations can make data-driven decisions on where to expand based on employment rates and local economic realities.</p> <p>Economic Growth: IdealSpot's data can help drive economic growth by assisting organizations and government bodies in attracting enterprises and supporting local development.</p> <p>Market Competitiveness: By choosing locations with favorable conditions for their industry, businesses can achieve a competitive advantage by understanding hyperlocal employment and economic statistics.</p>
Value Propositions	<p>Precision: Because the API provides highly exact and up-to-date data, users can make informed decisions based on the most recent information.</p> <p>Users can query data at several geographic scales, examining employment rates and economic circumstances at the micro and macro levels based on their needs.</p> <p>Users can obtain a competitive advantage in their particular sectors by making wiser location and market-related decisions with access to specialized economic data sets.</p>

<https://rapidapi.com/indiedevway/api/countrystats-database/>

API 8: Usage of Electricity (Rojan)

Description	<p>The National Electricity Market (NEM) in Australia is tracked, and an API with easy endpoints is provided to assist users in aligning their electricity usage with periods of abundant renewable energy. The API simplifies complex electricity market data so that the general people may make educated decisions about their electricity consumption.</p>
Potential Applications	<p>Consumers can use the nemy API to tailor their electricity consumption to periods when renewable energy sources, such as solar and wind, are most abundant. This can result in financial savings and a lower carbon footprint.</p> <p>Commercial and industrial users can incorporate nemy's data into their energy management systems to optimize energy consumption and lower expenses, especially during peak renewable energy periods.</p> <p>Grid Stability: Utilities and grid operators can use nemy data to</p>

	better manage the grid by encouraging demand response and load-shifting tactics, which improves grid stability and dependability.
Related Industry	The nemy API is inextricably linked to the energy and environmental industries. It combines renewable energy, electrical distribution, environmental conservation, and clean technology.
Impact	<p>Individuals and organizations can drastically minimize their carbon footprint and environmental effect by aligning their electricity consumption with renewable energy generation.</p> <p>Energy Cost Savings: By using power during periods of abundant renewable energy, which often corresponds to cheaper electricity rates, consumers can save money.</p> <p>Grid Optimization: Nemy's data can help with grid balancing and lowering the demand for fossil fuel-based power generation, resulting in a more sustainable energy mix.</p>
Value Propositions	The value proposition for electricity usage is in simplifying complex energy market data and making it available to a broad audience. This enables customers to make ecologically responsible and economically effective decisions about when and how they use electricity.

<https://rapidapi.com/search/Usage%20of%20electricity>

<https://rapidapi.com/nemy-nemy/api/nemy/>

<https://rapidapi.com/wattbuy-wattbuy-default/api/electricity-usage-estimate/>

API 9: Earthquake Data API (Nitesh)

Description	An Earthquake Data API is a web-based interface or service that allows users to programmatically access and retrieve earthquake-related data. It provides access to a wide range of earthquake information, including seismic activity, earthquake event details, and geospatial data. Users can request earthquake data for specific locations, time periods, magnitudes, and depths, depending on the capabilities of the API. Common earthquake data types available through such APIs include earthquake magnitude, location, date and time of occurrence, depth, and associated geographic coordinates (latitude and longitude). Many of these APIs offer real-time or near-real-time earthquake data, which is particularly valuable for earthquake monitoring, research, and emergency response. Please provide more specific details or the name of the API you're inquiring about, and I'd be happy to provide a more tailored description and information if it's within my knowledge base.
Potential applications	Earthquake Early Warning Systems: The dataset can be used to predict the location, magnitude, and

	<p>timing of earthquakes based on real-time seismic data. This information can be used to issue early warnings to minimize the impact on affected areas.</p> <p>Tsunami Warning: Combining earthquake and oceanographic data with machine learning, tsunami warning systems can be improved to issue timely alerts to coastal regions.</p> <p>Earthquake Detection and Monitoring: Machine learning algorithms can automate the detection of seismic events in real-time, ensuring faster and more accurate earthquake monitoring.</p>
Related Industry	<p>Similar Applications:</p> <ul style="list-style-type: none"> - ShakeAlert Earthquake Early Warning System - Google's Earthquake Alerts System <p>Exploring these existing systems to understand their approaches and the technology they use, we can develop a system with improvements tailored to a specific region or scenario, and may also explore novel ways to apply machine learning to address unique earthquake-related challenges that can be more specific and specific prone areas targeted.</p>
Impact	<ul style="list-style-type: none"> - General Public - Tourism Industry - Planning and Risk Management Committees
Value proposition	<ul style="list-style-type: none"> - Possible prior alert - Risk assessment - Historical insights and possible future predictions

<https://earthquake.usgs.gov/fdsnws/event/1/?ref=springboard>

API 10: Weather.gov API (Nitesh)

Description	<p>The National Weather Service (NWS) API is a valuable resource that provides developers with access to critical weather forecasts, alerts, observations, and other weather-related data. It has been designed with features that make it an essential tool for applications and services that require real-time and accurate weather information.</p>
Potential applications	<p>Weather Forecasting and Prediction:</p>

	<ul style="list-style-type: none"> - <i>Time Series Forecasting</i>: Machine learning models can analyze historical weather data to make short-term and long-term weather predictions. This can include temperature forecasts, precipitation predictions, and seasonal weather trends. <p>Natural Disaster Prediction and Response:</p> <ul style="list-style-type: none"> - <i>Hurricane Tracking</i>: Machine learning can be used to predict the path and intensity of hurricanes based on real-time weather data, enabling early warning and response planning. - <i>Flood Prediction</i>: ML models can predict areas at risk of flooding based on rainfall data, river levels, and historical flood data, assisting with evacuation and resource allocation.
Related Industry	<p>Similar Applications:</p> <ul style="list-style-type: none"> - The Weather Channel App - AccuWeather <p>Different from existing applications, our application can emphasise highly accurate forecasts, focus on specific industries (e.g., agriculture, transportation), or explore innovative features not yet available in existing apps. Additionally, you can consider incorporating machine learning to improve the accuracy of your forecasts and provide unique insights.</p>
Impact	<ul style="list-style-type: none"> - General Public - Tourism Industry - Emergency Services and Public Safety - Transportation and Logistics:
Value proposition	<ul style="list-style-type: none"> - Advanced Alerting and Notifications - Personalized Insights - Integration with IoT Devices

<https://www.weather.gov/documentation/services-web-api>

Description	<p>The Crunchbase dataset provides comprehensive information about startups, their funding rounds, and the entities involved in these transactions. It is a valuable resource for understanding the startup ecosystem, including details about startup companies, their founders, industry categories, funding amounts, investors, and funding dates. The dataset offers insights into the financial activities and trends within the startup world, making it a valuable tool for researchers, investors, entrepreneurs, and organizations interested in the startup and venture capital landscape.</p>
Potential applications	<p>Startup Investment Recommendation System: Develop a recommendation system that suggests promising startups for investment based on historical funding rounds, industries, and investor profiles. Investors can use this system to discover potential opportunities aligned with their preferences.</p> <p>Startup Valuation Calculator: Build a valuation calculator that estimates the value of a startup based on its funding history, growth trajectory, and industry benchmarks. Investors and startups can use this tool for financial planning.</p> <p>Startup Failure Analysis: Offer insights into the factors contributing to startup failures by analyzing the dataset for trends and commonalities among startups that did not succeed. This information can be valuable for learning from past mistakes.</p>
Related Industry	<p>Similar Applications:</p> <ul style="list-style-type: none"> • AngelList • Crunchbase • CB Insights <p>There is room for differentiation and innovation from above applications such as community engagement, specialisation, enhance reporting, startup risk analysis</p>
Impact	<ul style="list-style-type: none"> - Investors - Startups and Founders - Market research analysts
Value proposition	<ul style="list-style-type: none"> - Predictive Analysis - Investment Recommendation - Startup Modeling - Market Intelligence

<https://data.crunchbase.com/docs>

Description	Zillow Group's real estate-related dataset could encompass a wide range of data points related to the real estate industry. This may include information about property listings, market trends, property valuations, historical transaction data, mortgage rates, public property records, and more.
Potential applications	<p>Real Estate Marketplace Platform: Real estate marketplace platform where users can search, list, and purchase properties. Using property listings, pricing, location data, and images to enable property searches and online listings. Include features for property comparison, neighbourhood information, and real-time market trends.</p> <p>Property Valuation Tool: Tool for estimating property values. Provide users with property valuations, helping homeowners and buyers estimate property worth.</p> <p>Market Trends and Insights Dashboard: Real-time dashboard for tracking and analysing real estate market trends.</p>
Related Industry	<p>Similar Applications:</p> <ul style="list-style-type: none"> - Redfin - Trulia (Zillow Group) <p>We can differentiate your application by combining the convenience of technology with local expertise. Look at features that have gained popularity and trust among users, such as property valuations or neighbourhood insights.</p>
Impact	<ul style="list-style-type: none"> - Home Buyers - Home Sellers - Real Estate Brokers/Agents
Value proposition	<ul style="list-style-type: none"> - Predictive Analytics - Smart Property Scoring

<https://www.zillowgroup.com/developers/>

API 13: Water Quality monitoring APIs (Bakyt)

Description	This API provides study of Water Quality Monitoring Stations within the Manila Bay. Water samples were collected for the analysis of fecal coliform, color, total suspended solids, phosphate and nitrate at the EMB laboratory. Earlier, foot patrol along the shoreline stations, inventory of community households with and without septic tanks, drainage systems of livestock and other animals, and key informant interview were undertaken as initial efforts to address water quality problems within the protected area.
Potential Applications	Technical personnel of the Environmental Management Bureau (EMB) Region 2 and Community Environment and Natural Resources Office in Aparri, Cagayan recently conducted water quality monitoring at the Palau Island Protected Landscape and Seascape (PIPLS) in Sta. Ana, Cagayan The establishment of these APIs aims to comprehensively manage, address and effectively reduce the drivers and threats of degradation of the coastal and marine ecosystems.
Related Industry	Department of Environment and Natural Resources Ecosystems Research and Development Bureau Environmental Management Bureau Forestry Management Bureau Land Management Bureau Mines and Geosciences Bureau
Impact	Promote human well-being and ensure environmental quality Sustainably-managed environment and natural resources Adaptive capacities of human communities and natural systems ensured
Value Propositions	A nation enjoying and sustaining its natural resources and a clean and healthy environment.

[Water Quality Monitoring API Documentation \(themanilabay\) | RapidAPI](#)

API 14: Medicare Claims Data (Bakyt)

Description	TheMedicareClaimsData' API provides a comprehensive range of data related to Medicare claims in an easy-to-use format. It offers valuable insights into various aspects of healthcare, allowing users to make informed decisions and analyze trends.
--------------------	--

Potential Applications	This information is invaluable to healthcare professionals, researchers, insurers, and policymakers who rely on accurate and up-to-date data to improve healthcare services, optimize payment models, and develop targeted interventions to enhance patient outcomes.
Related Industry	The API includes essential data points such as beneficiary geographical level and description, beneficiary age level, demographic level and description, beneficiary condition, province information, total Medicare standardized payment per capita, total Medicare payment per capita, hospital readmission rate, and emergency room visits per beneficiaries
Impact	The 'MedicareClaimsData' API truly empowers users by providing access to a rich dataset that goes beyond superficial statistics, facilitating data-driven decision-making and fostering a more efficient and effective healthcare ecosystem
Value Proposition	By leveraging this API, users can gain a deeper understanding of Medicare claims data, enabling them to identify patterns, compare performance between different geographic regions and demographics, and assess payment trends.

<https://rapidapi.com/adrienpelletierlaroche/api/medicare-claims-data/>

API 15: Steam Store Data (Tyro)

Description	The Steam Store API offers access to various Steam Storefront data, such as featured games, new releases, specials, and livestreams. Users can request specific game information and store page details using an AppID, or package information using a package ID. Packages typically refer to bundled game content or other grouped content.
Potential Applications	This API can be used to collect data to analyze games in steam. Steam is one of the largest gaming platform. Therefore the data should be reliable and have large data. These data is useful to analyze the features that popular games having.
Related Industry	gaming
Impact	The Steam Store Data API could potentially impact a variety of businesses and individuals in the gaming industry. By using it for marketing and promotion, it can help to improve game awareness and sales. It can also be used for game analysis and research to understand game trends and user needs.

Value Proposition	The Steam Store Data API is the only API that provides access to data from the Steam Store, making it a valuable tool for businesses and individuals in the gaming industry. It can be used to investigate game popularity, analyze game reviews, and track market trends, all of which can help with game development, marketing, and research.
--------------------------	--

<https://rapidapi.com/archergardinersheridan/api/steam-store-data>

API 16: Google Cloud Vision API (Tyro)

Description	The Google Cloud Vision API is an API that can perform image recognition tasks on images. It can perform a variety of tasks, including object detection, text detection, and image classification.
Potential Applications	Google Cloud's video and image analytics capabilities allow you to quickly and easily build and deploy powerful video and image analytics applications, using pre-trained APIs and machine learning models, or by training your own custom models. You can also easily integrate your applications with BigQuery, Cloud Functions, and your cameras to enable end-to-end journeys.
Related Industry	E-commerce Retail Marketing Entertainment Manufacturing
Impact	The Google Cloud Vision API could potentially impact a variety of businesses and individuals in different industries. By making it easier to understand and analyze images, businesses can better understand their customers, develop new products and services, and improve marketing campaigns.
Value Proposition	The Google Cloud Vision API is a powerful tool for performing image recognition tasks on images. It can perform a variety of tasks, making it useful for a variety of purposes.

<https://cloud.google.com/vision>

API 17: Google Cloud Speech-to-Text (Tyro)

Description	Google Cloud's Speech-to-Text service allows you to transcribe your content with accurate captions, enable the power of voice to create better user experiences, and improve your service with insights from customer interactions.
Potential Applications	This API can be used to catch human voice to text. Therefore users can skip the steps of listening and texting them. This text data can be used in a lot of fields such as automating to learn what AI hear.
Related Industry	AI E-commerce Retail Marketing Entertainment Manufacturing
Impact	This API could potentially impact a variety of businesses and individuals in different industries. By making it easier to convert speech to text, businesses can improve customer service, develop new products and services, and improve education.
Value Proposition	The Google Cloud Speech-to-Text API is a powerful tool for converting speech to text. It provides high-quality speech recognition, making it useful for a variety of purposes.

<https://cloud.google.com/speech-to-text>

API 18: IBM Watson Natural Language Understanding (Tyro)

Description	IBM Watson Natural Language Understanding API is an API that can perform natural language processing tasks on text. It can analyze the sentiment of text to determine whether it is positive, negative, or neutral. And also it is possible to extract entities from text, such as names, places, and organizations.
Potential Applications	This API can be used to analyze emotions, entities, and modelings as description states. In my opinion, the combination of the previous API, Google Cloud Speech-to-Text API, is quite good. By use both API, we can analyze and do machine learning from human voice.
Related Industry	AI Marketing Customer service

	Entertainment Manufacturing
Impact	The IBM Watson Natural Language Understanding API could potentially impact a variety of businesses and individuals in different industries. By making it easier to understand and analyze text, businesses can better understand their customers, develop new products and services, and improve marketing campaigns. However, if users combine this API with Google Cloud Speech-to-Text API, this API's impact will be larger.
Value Proposition	The IBM Watson Natural Language Understanding API itself, is a powerful tool for performing natural language processing tasks on text. It can perform a variety of tasks, making it useful for a variety of purposes. However I think true value is combine with some API.

<https://cloud.ibm.com/apidocs/natural-language-understanding>

API 19: The Realty Mole real estate and property data API (Gholamreza Izadi)

Description	<p>This API provides on-demand access to 140+ million property records, owner details, home value and rent estimates, comparable properties, active sale and rental listings, as well as aggregate real estate market data.</p> <p>data gathers from a variety of sources, including public records, recorded deeds, tax assessors and online listing websites, and process over 500 thousand updates on a daily basis.</p>
Potential Applications	<ul style="list-style-type: none"> - Personal usage for approximation of rent costs - Housing market analytics - Gain useful insights for investing in construction - Government use for decision making
Related Industry	Housing, construction
Impact	This system can help controlling the market as an important market in the country. It can helps to fix price fluctuation, to find the best area to invest, ...
Value Propositions	<ul style="list-style-type: none"> - Retrieve dozens of data points for a specific address, including

	<p>structural attributes, property features, tax assessment history, and property tax amounts</p> <ul style="list-style-type: none"> - Get real-time property value and rent estimates (AVM) based on the unique characteristics of each property and nearby comparable listings - Search for property records or active sale and rental listings in a specific city, zip code or geographical area with many ways to filter the available data - Access historical rent trends, market averages, listing and composition statistics for any US zip code
--	---

<https://rapidapi.com/moneals/api/rent-estimate/details>

API 20: Mashvisor real estate and property data API (Gholamreza Izadi)

Description	Mashvisor API endpoints allow developer access for the implementation of custom applications. this API provides granular and summary level real estate information, in-depth property performance analysis, and up-to-date calculations performance metrics for cities, zip codes, and neighborhoods across the United States.
Potential Applications	<ul style="list-style-type: none"> - Personal usage for approximation of rent costs - Housing market analytics - Gain useful insights for investing in construction - Government use for decision making
Related Industry	Housing, construction
Impact	This system can help controlling the market as an important market in the country. It can helps to fix price fluctuation, to find the best area to invest, ...
Value Propositions	<ul style="list-style-type: none"> - Retrieve dozens of data points for a specific address, including structural attributes, property features, tax assessment history, and property tax amounts - Get real-time property value and rent estimates (AVM) based on the unique characteristics of each property and nearby

	<p>comparable listings</p> <ul style="list-style-type: none"> - Retrieve sales or rental comparables for any property, including their attributes, listed prices or rents, and distance from the subject property - Search for property records or active sale and rental listings in a specific city, zip code or geographical area with many ways to filter the available data - Access historical rent trends, market averages, listing and composition statistics for any US zip code
--	--

<https://rapidapi.com/mashvisor-team/api/mashvisor/details>

API 21: Daily atmosphere carbon dioxide concentration (Gholamreza Izadi)

Description	This API provides on a quasi-daily basis, the amount of carbon dioxide (CO ₂) in the atmosphere from 2010.01.01 to the present. It is expressed as a mole fraction in dry air, parts per million (ppm).
Potential Applications	<ul style="list-style-type: none"> • Monitoring air quality to make some policies for reducing the consequences • Awareness of air quality to plan daily outside activities
Related Industry	Environment, healthcare
Impact	Information about air quality and make appropriate actions by all stakeholders can be effective in solving climate change problem.
Value Propositions	<ul style="list-style-type: none"> - Daily bases information - Long time series providing useful tool to analyze CO₂ data

<https://rapidapi.com/rene-mdd/api/daily-atmosphere-carbon-dioxide-concentrationvisor/details>

API 22: Atmosphere nitrous oxide levels (Gholamreza Izadi)

Description	This API provides on a monthly basis, the amount of nitrous oxide in the atmosphere from 2001 to the present. Expressed as a mole fraction in dry air, parts per million (ppm).
Potential Applications	<ul style="list-style-type: none"> - Monitoring air quality to make some policies for reducing the consequences - Awareness of air quality to plan daily outside activities
Related Industry	Environment, healthcare
Impact	Information about air quality and make appropriate actions by all stakeholders can be effective in solving climate change problem.
Value Propositions	<ul style="list-style-type: none"> - Daily bases information - Long time series providing a useful tool to analyzenitrous data

<https://rapidapi.com/rene-mdd/api/atmosphere-nitrous-oxide-levels/>

API 23: Waste management APIs (Bakyt)

Description	Waste Management REST APIs has been established for new domestic markets for responsible recycling and beneficial use of these materials.
Potential Applications	Services for Communities: Municipalities, home owners, property management
Related Industry	Focus on the food leftovers, restaurant trash and recycling services. office clean and productive with environmentally conscious waste services. waste services for retail establishments, construction and manufacturing.

Impact	<p>focus on maximizing resource value while minimizing environmental impact so that both our economy and environment can thrive</p> <p>commitment to the environment, community and service, we're a company driven by purpose, educate customers and communities about managing waste responsibly.</p>
Value Proposition	<p>Diversity & Inclusion embrace and cultivate respect, trust, open communications and diversity of thought and people.</p> <p>Customers place customers at the center and aspire to delight them every day.</p> <p>Safety zero tolerance for unsafe actions and conditions and make safety a value without compromise.</p> <p>Environment responsible stewards of the environment and champions for sustainability.</p>

<https://api.wm.com/v1>

[Waste Management API \(wm.com\)](https://api.wm.com/v1)

API 24. Asian Development Bank E- Procurement (Bakyt)

Description	API for E-procurement is to assist in searching data for the procurement of goods, works, and services, and in the management of contracts, use of electronic procurement (e-procurement) in different stages of the procurement process
Potential Applications	ADB staff and borrowers (including grant recipients) on how to incorporate aspects of sustainability in the public procurement process.
Related Industry	government agencies, the bidding community, regulatory and oversight agencies, other supporting service providers, and civil society

Impact	sustainable public procurement throughout the ADB procurement cycle from planning, contract specification, evaluation to contract management. Tools and references based on international best practices and Case studies from countries on sustainable procurement policies and long-term positive impact on economies and communities
Value Proposition	E-procurement promotes good governance, transparency, value for money, audit trails, and the broadest possible access to suppliers. Key to successful implementation of e-procurement is flexibility. The implementation of an e-procurement system should be part of a change management strategy that must be developed and implemented, and high-level sponsorship and oversight

<https://data.adb.org/search/content/type/dataset>

Selected APIs

Which datasets can be potentially combined to create a very unique application?	<p>We selected API 2: Recipes & Nutritional and API 3: Health Calculator API. By integrating the "Recipes & Nutritional" and "Health Calculator" APIs, users can get a deeper understanding of how their dietary choices affect their health. They can explore recipes, track their nutritional intake, and receive health-related metrics all in one place. Also we can provide personalized recommendations for recipes and dietary choices based on a user's health metrics and goals.</p>
Potential Applications	<ul style="list-style-type: none">- Diet and Nutrition Apps: Create a diet and nutrition app that allows users to search for recipes, track their nutritional intake, and get health assessments based on their dietary choices.- Fitness and Health Tracking: Integrate the APIs into a fitness app to help users assess how their meals impact their health and fitness goals.- Meal Planning Tools: Develop a meal planning tool that generates balanced meal plans based on a user's dietary preferences and health objectives.- Medical and Healthcare Apps: Medical professionals can use the integrated APIs to provide personalized dietary recommendations to patients, especially those with specific health conditions.