



Data management & analysis

Timspark



What is Timspark

A custom software development boutique with a special business model that ignites and fosters full-fledged development teams and inspires every engineer to deliver outstanding results.



Core Teams



Understanding of industry & business domain



High-quality teams with a proven expertise



Teams are highly motivated



Accountability and ownership within the teams

Quick facts

30+

teams onboarded

1000+

vettted engineers involved

800+

projects
accomplished

Headquarters in London, UK



How you can work with us

We are flexible. At Timspark, we offer different engagement models, from full-fledged teams to staff augmentation, to help you achieve your current business needs.



Core Teams

Pre-built development teams with deep expertise



Dedicated teams

Development units built specifically for your project



Team augmentation

Skilled engineers to enhance your in-house team

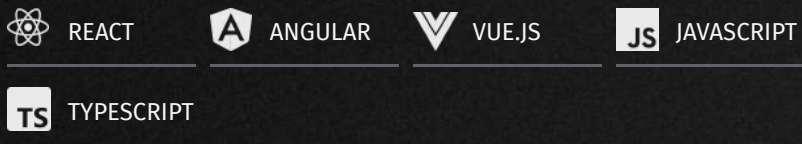
Our Capabilities



BACK-END



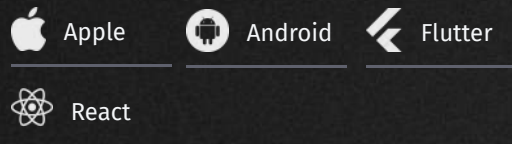
FRONT-END



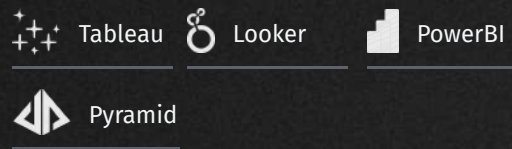
PLATFORMS



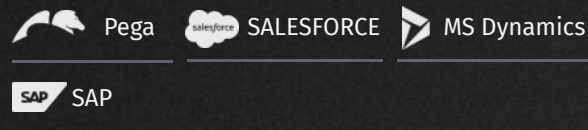
MOBILE APPS



BI AND DATA VISUALIZATION



ERP, BPM AND CRM



Industry competence



eCommerce and retail



Logistics, supply chain
and transportation



Architecture, construction
and real estate



Finance, banking and
insurance



Tourism and hospitality



Energy, oil and gas



Healthcare and life
sciences



Media and entertainment



Public services and
utilities



Education



Telecommunications



Agriculture



Manufacturing



Business management



Art and culture



Automotive



HR and recruiting



Ecology

Our services

Timspark provides professional services around **bespoke software**:



Full-cycle product development

- ◆ We deliver a premium market-ready product that meets your customers' needs, from conceptualization to the design phase to final production and launch.



IT-Consulting

- ◆ With our technology audit and consulting expertise, we offer holistic guidance, identify areas for improvement, and develop effective strategies to meet your business needs.



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Development units built specifically for your project



Team augmentation

Skilled engineers to enhance your in-house team

Data Unit Profile



TEAM SIZE

80+

INDUSTRIES

Finance & Banking

Retail & eCommerce

Healthcare

Automotive Industry

Tourism

Transportation & Logistics

Social networks

Business Management

Media & Entertainment

Construction

Education

Security



CERTIFICATES

+2

+6 ongoing

Senior

MATURITY

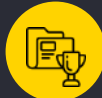
40%

Middle

40%

Junior

20%



COMPLETED PROJECTS

100+



TECH VERTICALS

BI tools

ML

Data science

Cloud

+2

Data management tools and technologies

BI and data visualization tools

Tableau

Google Data Studio

Looker

Datawrapper

Microsoft PowerBI

QuickSight

Qlik Sense

QlikView

DWH services and databases

Microsoft SQL Server

PostgreSQL

MongoDB

MySQL

MariaDB

Cassandra

Clickhouse

Neo4j

Redis

Aurora

DynamoDB

Redshift

RDS

Snowflake

DocumentDB

Synapse

CosmoDB

Google Bigquery

Cloud
BigTable

Languages and frameworks

Python

RAWGraphs

JavaScript

Angular

React.js

Vue.js

Data storage

Amazon S3

Amazon DynamoDB

Amazon DocumentDB

Azure Cosmos DB

Azure Blob Storage

Azure Data Lake

Azure Data Factory

Google Cloud Datastore

Memorystore



Data visualization services



✦ Consulting for effective data visualization

We formulate a customized strategy for each client. It is precisely aligned with the business needs and objectives, and you can optimize costs while finding new high-tech solutions.

✦ Designing visualizations that speak volumes

We are proficient in delivering the most efficient and dependable data visualization solutions. Uncover the exact data you need, effortlessly.

✦ Creating tailored data visual platforms

We specialize in developing platforms that customize data integration from diverse sources, establish a centralized repository, provide data security, and elevate the standards of reporting and final visualization.

✦ Data visualization software development for business excellence

Timspark builds bespoke solutions that transform complex datasets into easily understandable graphics and dashboards. We help businesses identify patterns promptly, adapt to dynamic changes, and take data-driven decisions.

✦ Personalized insights via custom reports and dashboards

We know how to enhance your business intelligence. We develop customized dashboards and reports that spotlight crucial metrics for growing your company.

✦ Optimizing data representation with your business needs

Our data engineers can level up your existing data management framework. We assess and optimize processes in your company to implement the data set in the most effective way possible.





Power BI

Case Studies: **Microsoft PowerBI**



Data management tool

HEALTHCARE

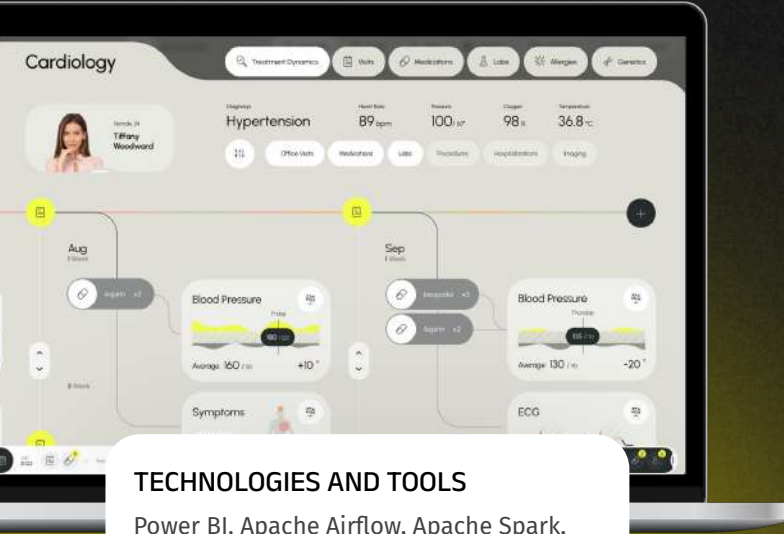
CHALLENGE

The application gathers and processes data from healthcare establishments and then creates a unified database for further use.

SOLUTION

Our team was to develop the application for gathering and processing data from healthcare establishments from scratch. The solution gathers data according to the predetermined mapping of variables, takes into consideration the patients' and therapists' affiliation with a particular clinic, etc. This allows to swiftly gain access to any needed case or treatment program.

Also, through the solution users can easily visualize the overall structure and relationships between healthcare establishments since the application performs data mapping automatically.



TECHNOLOGIES AND TOOLS

Power BI, Apache Airflow, Apache Spark, Pandas, AWS (Redshift, Glue, S3, SnowFlake, DataBricks, SQS, SNS, ECS, ECR, Lambda).

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Data flow design

DATA MANAGEMENT

CHALLENGE

The solution is a data flow design that makes the data management more effective while remaining normalized.

SOLUTION

The Team has designed the whole database structure and data flow design to make the process of gathering and managing data swift and optimized. The incoming data passes the purification process and gets transferred to the database. From the database, the client's employees can request any needed data for further analysis.

The developed data flow model automatically gathers data from millions of users and constantly updates the database so that client's staff always had up-to-date information. For comfortable use, the solution presents the data in the vivid form of sheets or graphs.

TECHNOLOGIES AND TOOLS

Apache Spark, Apache AirFlow, PostgreSQL, ER/Studio, Azure(Functions, Data Factory, Data Lake, Synapse, Cosmo DB, DataBricks, SQL Azure), PowerBI, Python, pytest.

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Risk analysis API

FINTECH

CHALLENGE

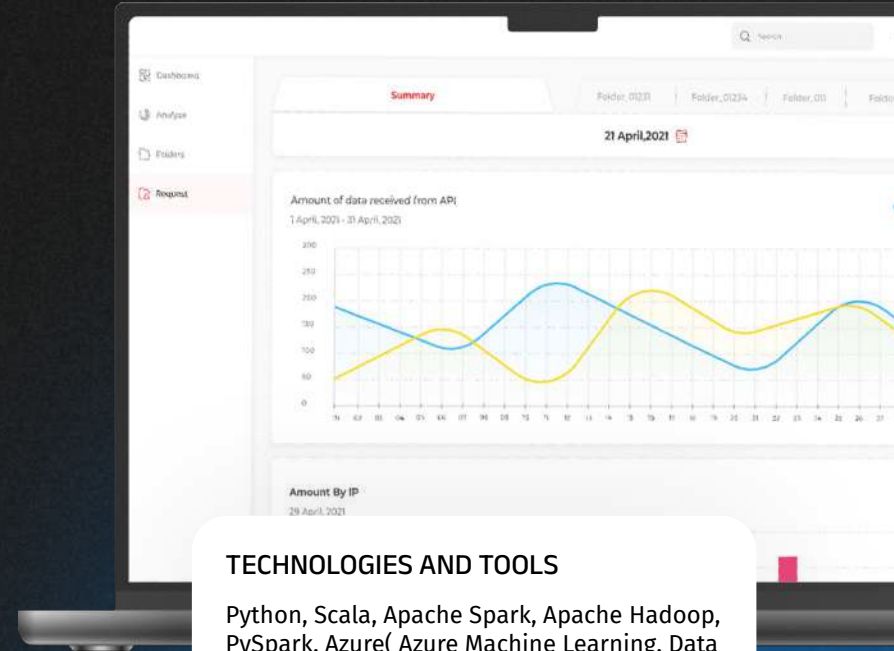
The solution allows a FinTech company to accumulate information about the client's credit score and latest loans for further assessment of non-return risks.

SOLUTION

Timspark has built a solution that accumulates data about the client's recent loans and overall credit score. After that, the accumulated historical data is processed by ML algorithms to create forecasts about the particular client's capabilities of covering the requested loan conditions.

The data is gathered from various sources including public records and our client's history of interactions with the particular customer, put into a multi-layer data warehouse, and then analyzed by an array of data analytic tools integrated into the solution.

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TECHNOLOGIES AND TOOLS

Python, Scala, Apache Spark, Apache Hadoop, PySpark, Azure(Azure Machine Learning, Data Lake, Data Factory, Synapse), PowerBI.

Marketing costs optimization tool

MARKETING

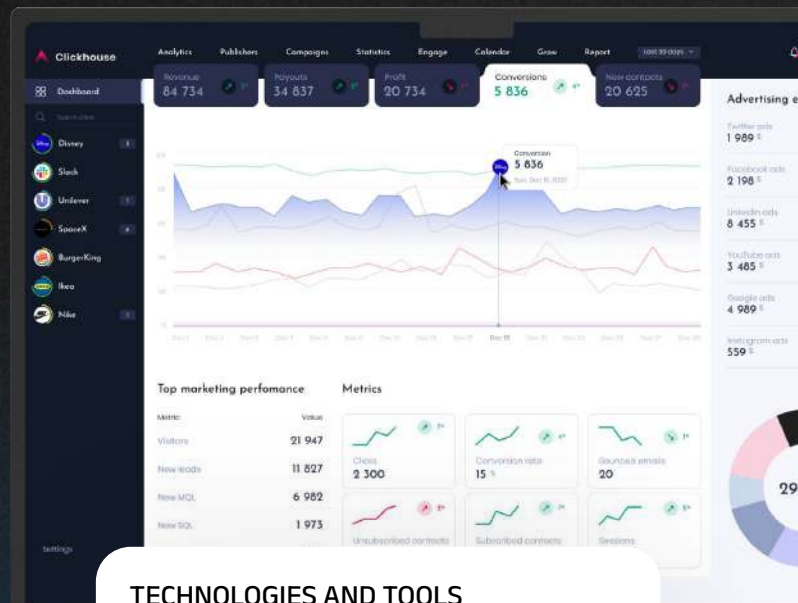
CHALLENGE

The platform allows game developers to observe their marketing expenses and optimize them with the help of various data analytics tools.

SOLUTION

The Team has developed a solution that accumulates, analyzes, and visualizes the information about how much game development companies spend on marketing activities and how effective it is.

Users can view their expenses and the metrics related to them in the application. After data analysis, the solution performs forecasting of possible results according to known expenses. Users can alter several variables and see how the forecast changes and optimize their marketing budget according to the received data.



TECHNOLOGIES AND TOOLS

Python, NumPy, Pandas, Django, Angular, Celery, GCP(BigQuery, BigTable, Dataflow, Looker, Cloud Storage), Power BI.

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Executive search tool

HR

RECRUITING

CHALLENGE

The platform allows users to perform a comprehensive analysis of various candidates for an executive position and pick the most suitable ones based on various parameters.

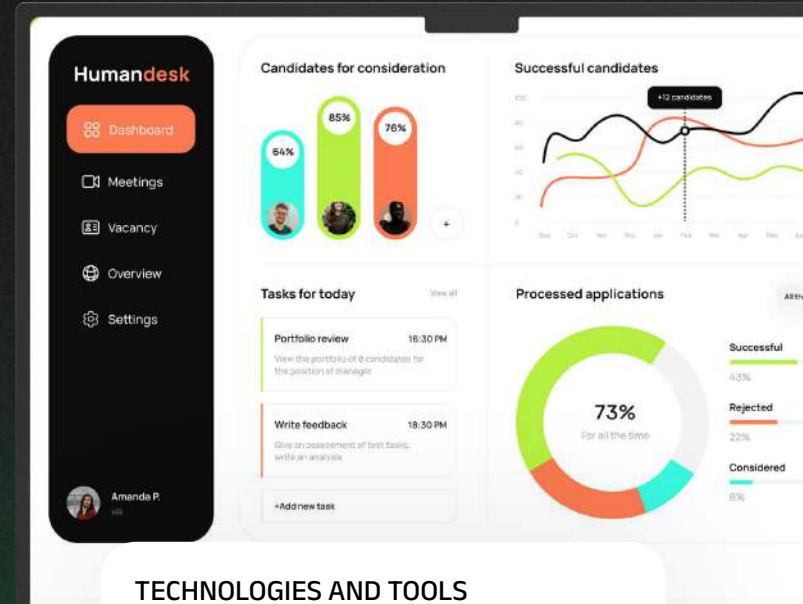
SOLUTION

The Team has built the tool for analyzing the profiles of candidates for an executive position dragging data from various sources like social networks or overall mentions on the Internet.

The solution gathers all the intel about the particular candidate, analyzes it with the help of various tools, and visualizes it in the client's dashboard with the approximate evaluation of the candidate's suitability for the position.

The platform allows to access the found data and analytics results manually from the dashboard.

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TECHNOLOGIES AND TOOLS

Python, MongoDB, MySQL, AWS (S3, Lambda, SNS, FIFO SQS), Power BI, Apache Spark, Apache Airflow, Apache Hadoop, PySpark.

Sales analytics platform

ECOMMERCE

CHALLENGE

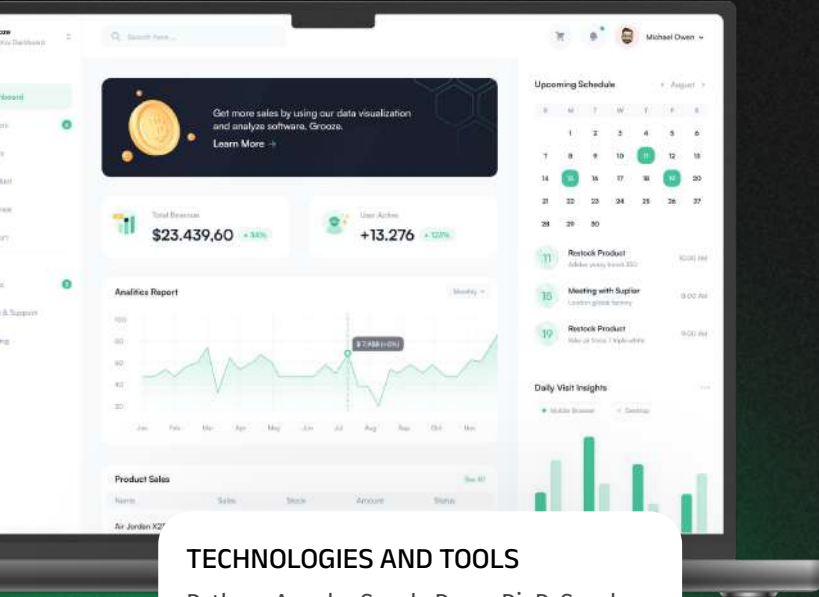
The solution consists of the database and additional procedures that automate database filling and allow using the filled data for further analysis.

SOLUTION

Tech specialists have developed a platform that gathers data chunks from various sources, purifies them, and transforms them into the needed format for further utilization. After that, the aggregated data is transferred to the OLAP database where it acquires its dimensions and hierarchical attributes. All the data is visualized via a fact chart.

After the data is processed by the platform, it becomes possible to promptly perform any data analysis activities and gather valuable insights on the market and customer behavior faster.

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TECHNOLOGIES AND TOOLS

Python, Apache Spark, PowerBi, PySpark, Databricks, SQLserver, Azure, Data Lake, SSAS.



Case Studies:

Tableau



International finance

FINANCE

CHALLENGE

Monitor the countries' economic indicators, articulate credible and comprehensive development impact results of IFC investment projects in the countries' economies worldwide and ensure accountability to stakeholders.

SOLUTION

The evaluation applied a multi-level, mixed method approach to collecting data and triangulating various sources of evidence. The team conducted quantitative analysis of secondary data and presented the results in a comprehensible form for easy accountability.



TECHNOLOGIES AND TOOLS

Oracle DB.

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Retail

RETAIL

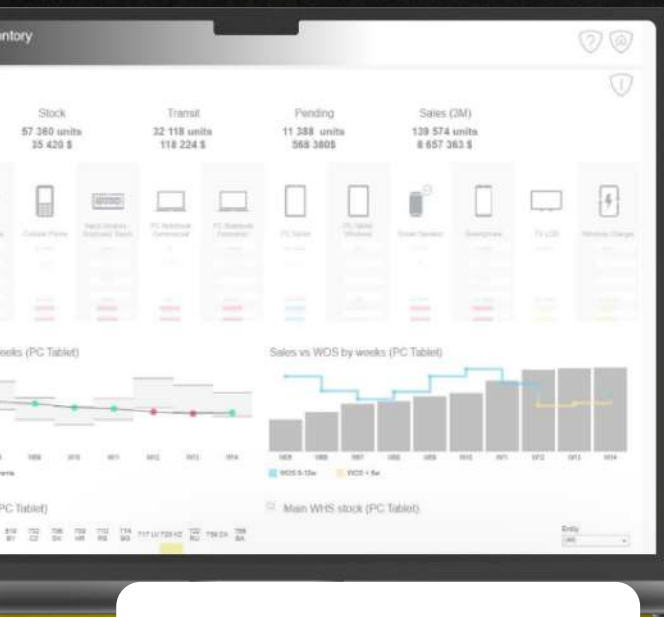
DASHBOARD

CHALLENGE

Build a comprehensive data visualization solution that would empower the sales department with effective plan-fact analysis, accurate forecasting, KPI calculation, and intuitive data presentation.

SOLUTION

The dashboard provides a plan-fact analysis, forecasting, KPI calculation, and data presentation in a tabular form with the ability to see an explanation when you hover over several interests. Its implementation resulted in heightened efficiency, improved performance assessments, and a more proactive approach to market dynamics.



TECHNOLOGIES AND TOOLS

IBM DB2, Excel.

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Pharmaceuticals

HEALTHCARE

CHALLENGE

Implement data visualization dashboards for analysing effectiveness heads of sales and marketing departments and medical representatives' in their interactions with practicing doctors.

SOLUTION

The solution involved combining ten external data sources and utilizing data visualization to cluster doctors for targeted engagement. It has not only optimized the effectiveness of medical representative engagements but has also resulted in more personalized and impactful interactions with practicing doctors.



TECHNOLOGIES AND TOOLS

MS SQL, Excel/CSV, IMS Health.

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Finance

FINANCE

CHALLENGE

Empower the heads of sales and marketing departments with data-driven insights for more strategic decision-making on banner advertising placement.

SOLUTION

The data-driven approach to banner advertising placement transformed the company's marketing strategy. The solution enables heads of sales and marketing departments to reduce advertising costs and effectively determine distribution channels.



TECHNOLOGIES AND TOOLS

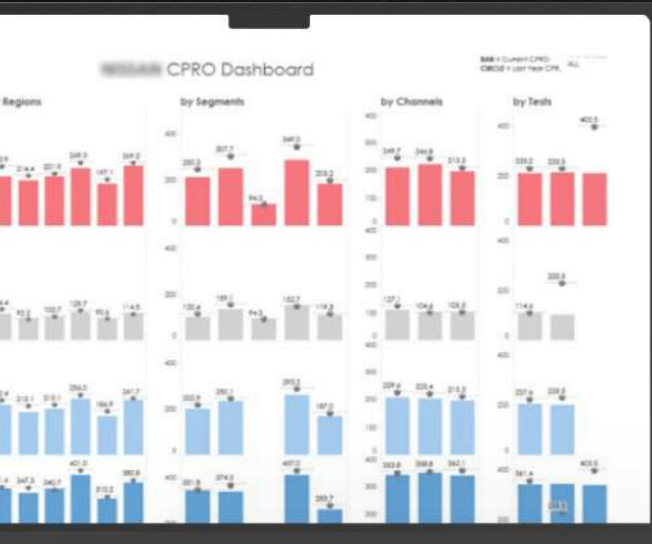
Oracle, Excel/CSV.

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Automotive industry

DASHBOARD

AUTOMOTIVE



TECHNOLOGIES AND TOOLS

MS SQL, Excel/CSV.

CHALLENGE

Analyse and provide dashboards as an analytical tool for the corporate marketing department to dissect marketing campaigns comprehensively and gauge their direct influence on sales outcomes.

SOLUTION

The heads of sales and marketing now possess a centralized platform that not only analyzes campaign performance but also establishes a clear link between marketing efforts and actual sales outcomes. This shift has resulted in more targeted, efficient, and revenue-generating marketing strategies,

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Visualization & analytics tool

DATA MANAGEMENT

CHALLENGE

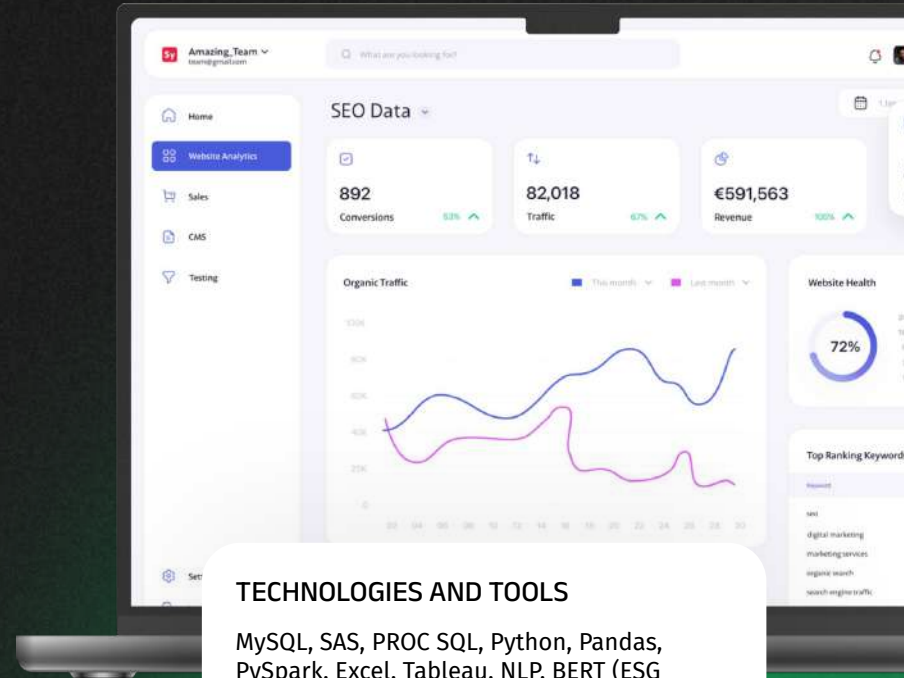
Create a data visualization and analytics layer for a management consulting company.

SOLUTION

The layer designed by the Team allows to track changes in the constructed ESG score over time, empowering decision-making with data-driven insights.

The bonus analytics dashboard provides a comprehensive view of the bonus program across the consulting department. The dashboard provides interactive visualizations of key metrics including bonus amounts, distribution, and performance, enabling managers to explore trends over time and drill down into the data.

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TECHNOLOGIES AND TOOLS

MySQL, SAS, PROC SQL, Python, Pandas, PySpark, Excel, Tableau, NLP, BERT (ESG Classification, Sentiment analysis) on textual alternative data.

Predictive HR analytics system

HR

RECRUITING

CHALLENGE

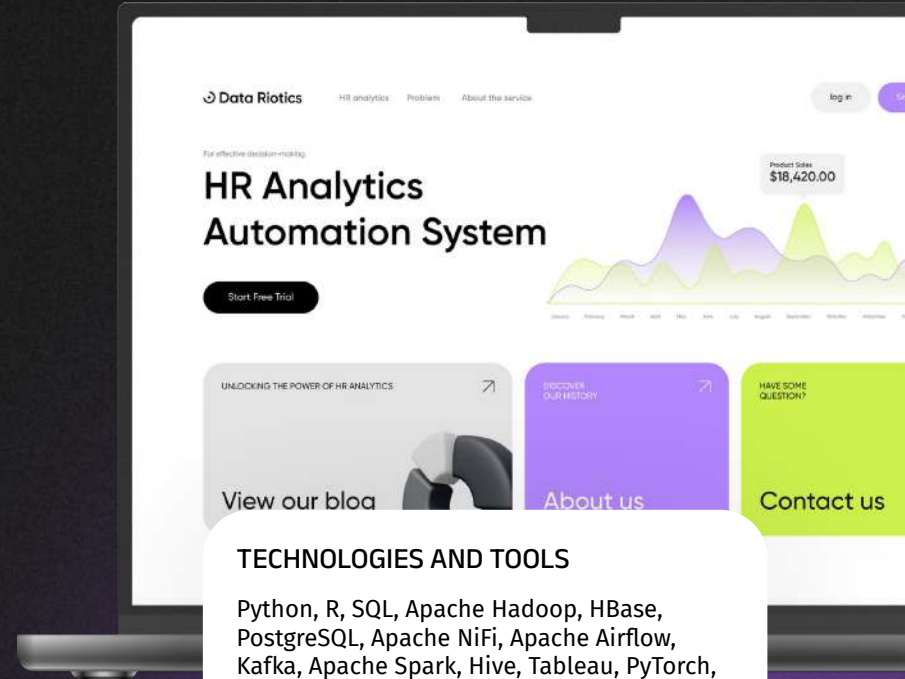
Develop a data analysis platform with embedded predictive modelling tools for HRM.

SOLUTION

The system allows HR managers to monitor workforce productivity and forecast employee turnover. We designed a platform to analyze performance data from multiple sources, including HR management systems, employee surveys, and project management tools.

The system identifies factors contributing to work efficiency and job satisfaction, such as utilization and absence rates, number of customers covered, and more. The predictive models forecast staff turnover and enable data-driven decisions to optimize employee retention rates.

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TECHNOLOGIES AND TOOLS

Python, R, SQL, Apache Hadoop, HBase, PostgreSQL, Apache NiFi, Apache Airflow, Kafka, Apache Spark, Hive, Tableau, PyTorch, A/B tests, econometric models, time-series analysis (descriptive analysis, forecasting) on cross-sectional & time series data.

Data design

HEALTHCARE

PHARMACEUTICS

CHALLENGE

Develop a data design project for a pharmaceutical company that allows the client to promptly receive the data from various sources and utilize it for desired purposes.

SOLUTION

Timspark's data engineers were to design the pipelines for data streams from various sources. All the data chunks are managed through Denodo and are sent to data warehouses, from which business intelligence specialists analyze them via such tools as Tableau.

After the data gets to the data warehouse, it's visualized and sent in the vivid form to the client's specialists for analysis and further utilization.

TECHNOLOGIES AND TOOLS

Python, Apache Spark, Apache Airflow, Denodo, Tableau, VizQL, DenodoVQL AWS (S3, Lambda, Glue, Snowflake, Athena, RDS, DataBricks, Redshift, EC2).

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Order management platform

HR

RECRUITING

CHALLENGE

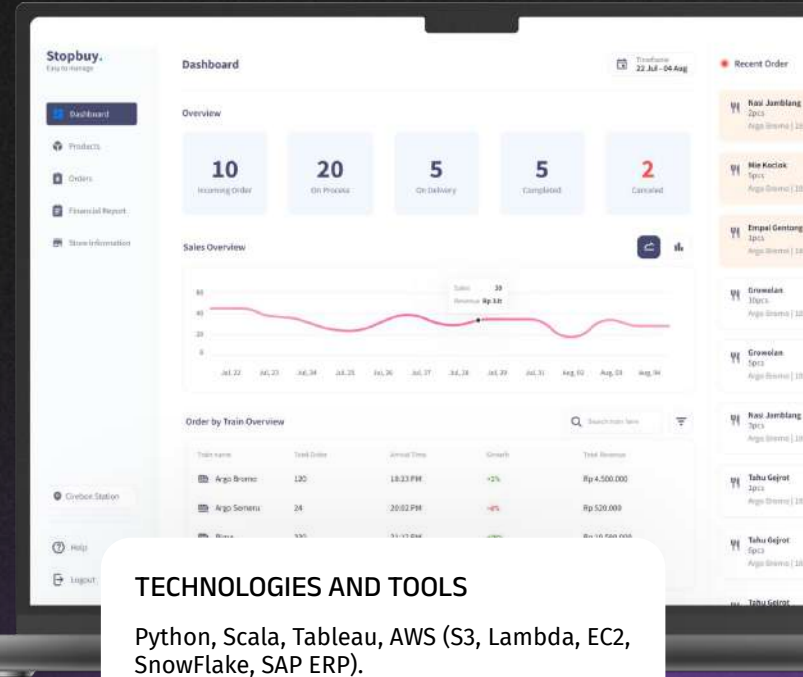
Automate the eCommerce platform processes allowing merchants to swiftly respond to orders and optimize the logistics.

SOLUTION

The Team has created a tool set that gathers information about customers, their orders, and order statuses in real-time.

Customers can receive the most comprehensive description of the products they order while the platform automatically tracks the order status.

As soon as the order is paid, the platform compares the customer's location with the location of the warehouses containing the ordered goods and upcoming distribution routes to suggest the most rapid and cost-effective way of delivering the products to the customer.



TECHNOLOGIES AND TOOLS

Python, Scala, Tableau, AWS (S3, Lambda, EC2, Snowflake, SAP ERP).

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Cloud database improvement

DATA ENGINEERING

CHALLENGE

Provide a solution that allows businesses to effectively aggregate, store, and analyze data via cloud-based services and tools.

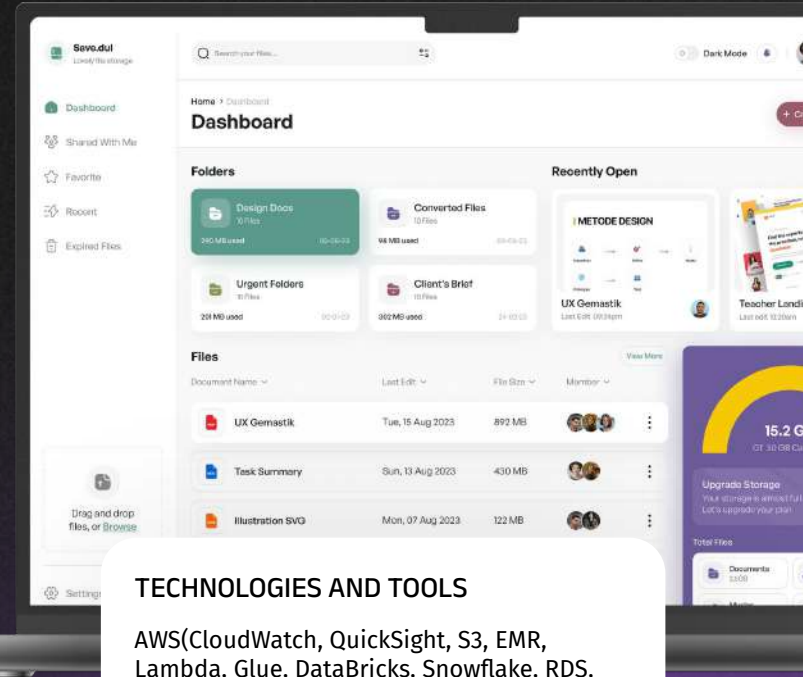
SOLUTION

Software engineers have improved the existing cloud database with an array of features that allow our client to gather and manage incoming data chunks effectively in an automated way.

Our team is analyzing the AWS instances and logs on a daily basis as well as the in-database processes to provide the client with ways to optimize the solution's workflow.

The Team improved the speed and has made the data flow more effective in terms of aggregating and manipulating the gathered data chunks.

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TECHNOLOGIES AND TOOLS

AWS(CloudWatch, QuickSight, S3, EMR, Lambda, Glue, DataBricks, Snowflake, RDS, Redshift, Kinesis), MySQL, Python.

SMM statistics management tool

SOCIAL MEDIA

CHALLENGE

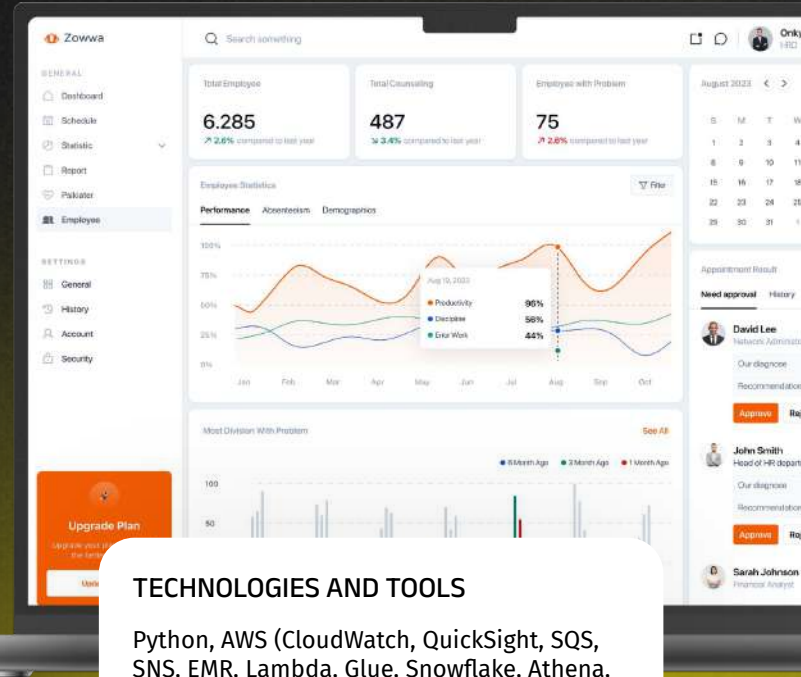
Develop a data management tool that gathers the statistics of the bloggers' social networks, processes and visualizes them for further use.

SOLUTION

The team was to create the solution and design the data flow to be operated and visualized via the application.

The solution gathers the data from bloggers' social networks, processes it into visual form, and sends it back to bloggers. From it, they can see the community activity over time, gather statistics on the most and least active posts, etc.

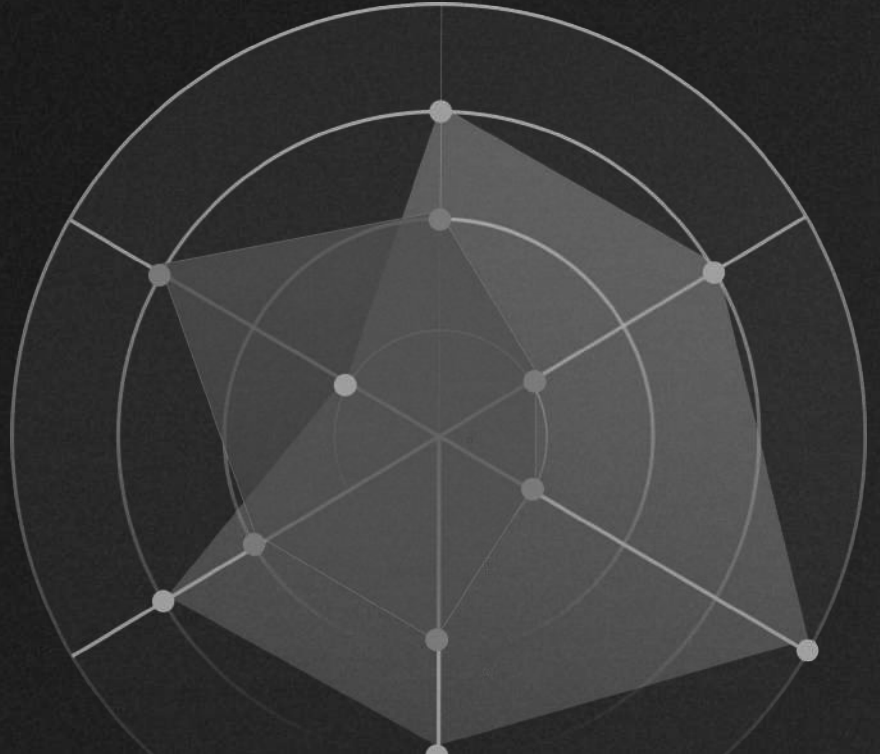
The solution is based on AWS, data operations are performed via Apache Spark.



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Case Studies: QuickSight



Cloud database improvement

DATA ENGINEERING

CHALLENGE

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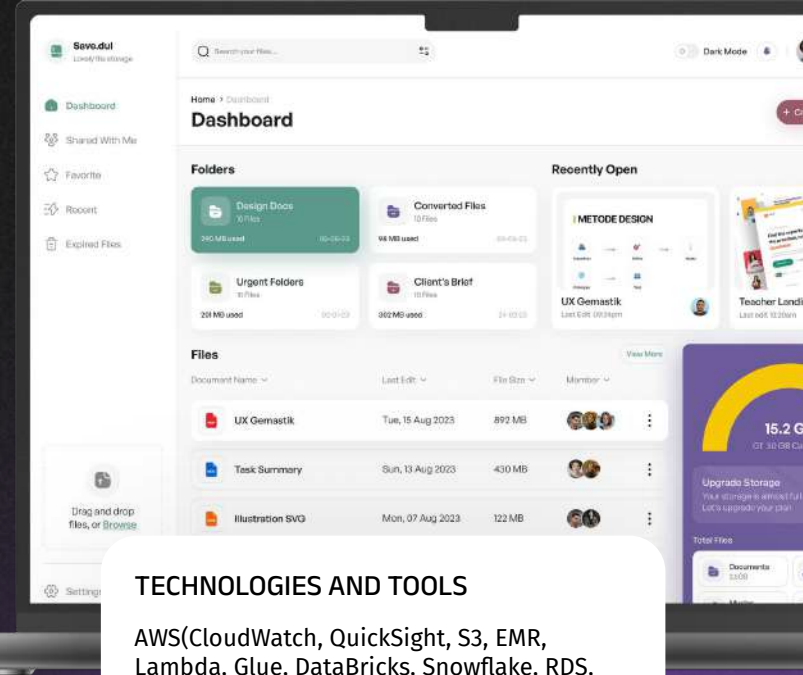
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SMM statistics management tool

SOCIAL MEDIA

CHALLENGE

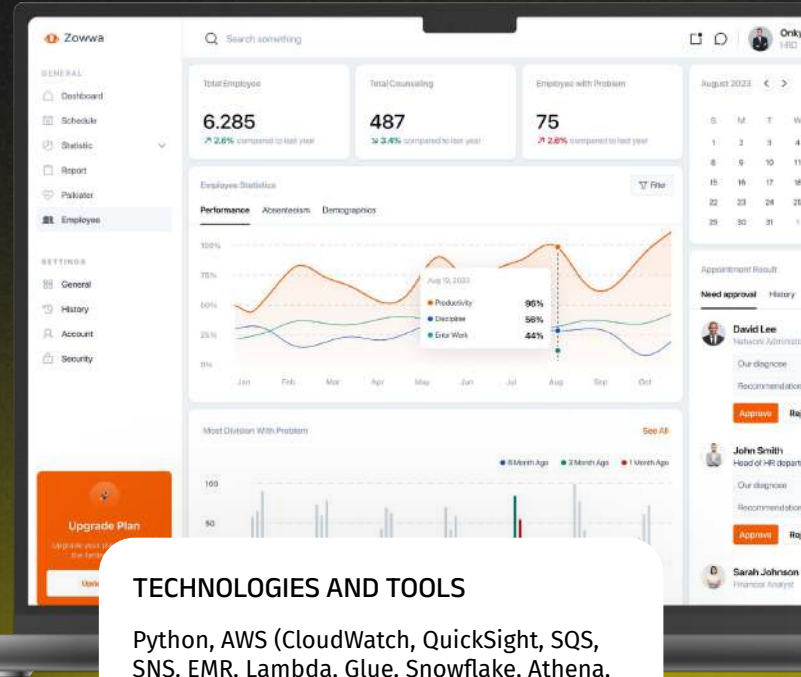
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Case Studies: **Looker**



Customer data platform

ECOMMERCE

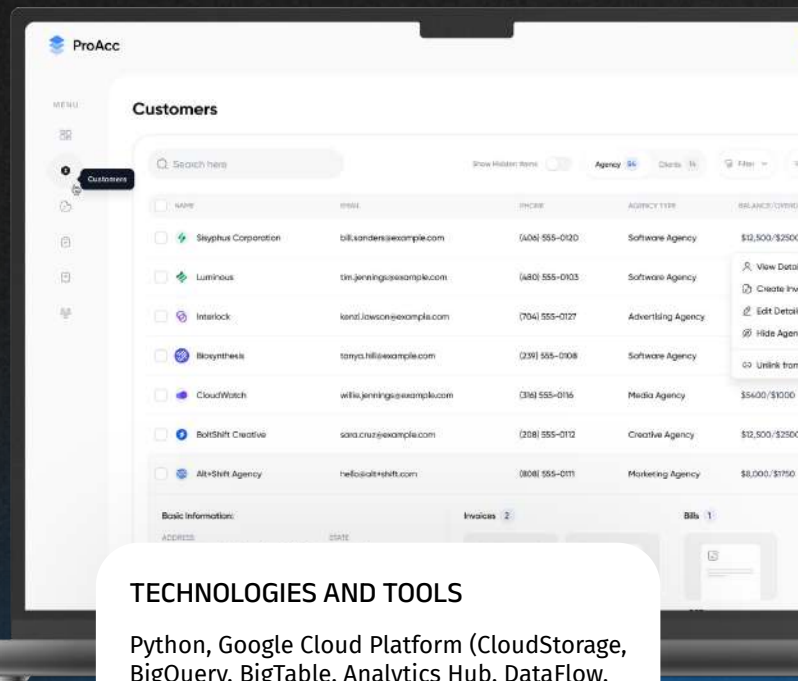
CHALLENGE

The solution is a CDP designed for an e-commerce SaaS company operating in the APAC and NORAM regions.

SOLUTION

By gathering information on sales, customer profiles, campaign management, clickstream and public data, the platform generates automated insights to improve business outcomes. The solution improved the company's website and marketing strategies via A/B testing, leading to higher revenue and customer satisfaction. Customer data utilization resulted in personalized experiences, increased engagement and conversion rates. The platform's Shapley value feature optimized SaaS KPIs by quantifying the contribution of various input variables to key metrics.

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TECHNOLOGIES AND TOOLS

Python, Google Cloud Platform (CloudStorage, BigQuery, BigTable, Analytics Hub, DataFlow, PubSub, BigQuery, Cloud Functions; Looker, Campaign tracker, Vertex); TensorFlow, ML, Shapley.

Intellectual property protection platform

PR

LEGAL

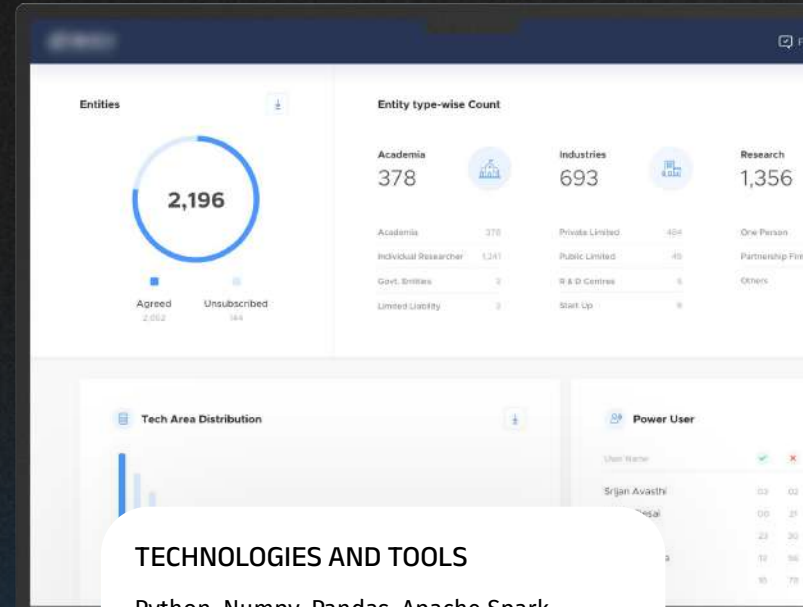
CHALLENGE

Build a data analytics platform that allows brands to monitor their mentions on the web and check them according to compliance guidelines.

SOLUTION

Data engineers have developed a unique data collection and management tool that allows swift analysis of brand mentions on such marketplaces as eBay, Amazon, etc.

Brands can track the products and intellectual property mentioned on the web and from partner sources and check whether the mentions comply with the intellectual property protection laws and compliance guidelines to take further actions if needed.



TECHNOLOGIES AND TOOLS

Python, Numpy, Pandas, Apache Spark, Denodo, DenodoVQL, Django, GCP (BigQuery, Dataproc, Dataflow, PubSub, Compute Engine, Cloud SQL, Cloud Storage, Cloud Run, Looker, Dataprep), AWS, MySQL, Clickhouse, Apache Cassandra.

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Scientific data analytics platform

DATA ANALYSIS

SCIENCE

CHALLENGE

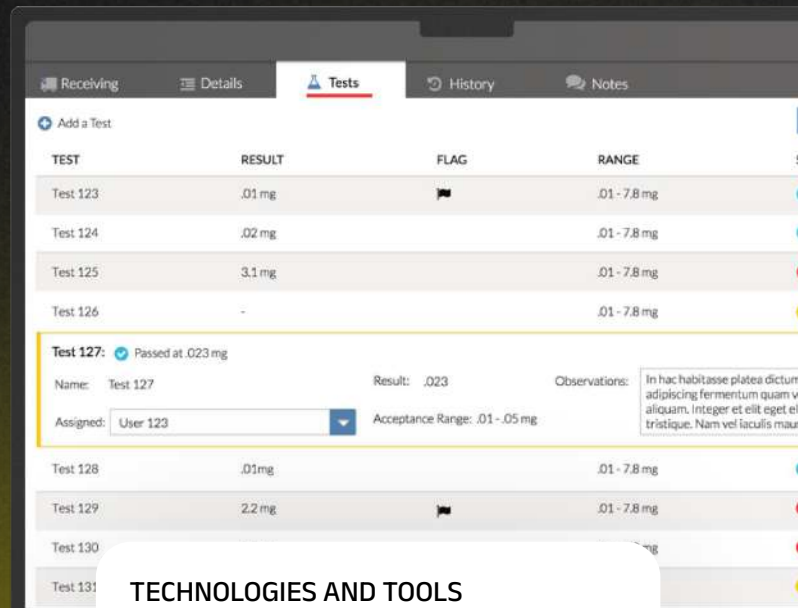
Develop a solution that allows users to search for relevant intel across multiple scientific data sources and analyze the received information.

SOLUTION

We have developed a solution that performs the search across various scientific publications (grants, clinical research, patents, databases, policy documents, etc.) according to the user's search query and reveals all the relevant information to the searcher.

Moreover, the platform possesses a set of data analysis tools for text mining, analyzing the publications' impact, terms co-occurrences, trends, searching for chemical substances by drawn structures, and defining the network of scientific institutions and independent researches related to the search query. All the data is presented to a user in vivid form thanks to the built-in data visualization tool.

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The screenshot displays a web application interface for managing scientific tests. At the top, there are navigation tabs: 'Receiving', 'Details', 'Tests' (which is active), 'History', and 'Notes'. Below the tabs is a table with columns for 'TEST', 'RESULT', 'FLAG', and 'RANGE'. The table lists several tests, with 'Test 127' highlighted in yellow. Below the table, a detailed view for 'Test 127' is shown, including a status indicator 'Passed at .023 mg', fields for 'Name: Test 127', 'Result: .023', 'Assigned: User 123', and 'Acceptance Range: .01 - .05 mg'. An 'Observations' field contains a Latin placeholder text. The interface is clean and modern, with a dark header and light content area.

TEST	RESULT	FLAG	RANGE
Test 123	.01 mg	🚫	.01 - 7.8 mg
Test 124	.02 mg		.01 - 7.8 mg
Test 125	3.1 mg		.01 - 7.8 mg
Test 126	-		.01 - 7.8 mg
Test 127	.023 mg		.01 - 7.8 mg
Test 128	.01mg		.01 - 7.8 mg
Test 129	2.2 mg	🚫	.01 - 7.8 mg
Test 130			
Test 131			

TECHNOLOGIES AND TOOLS

Google Cloud Storage, Google BigQuery, Google Data Studio, Looker, Apache Solr, Python.

Keen on **exploring** further?

Let's discuss your requirements and come up with a tailored solution!

At Timspark, we intend to bring value and competitive advantage to our clients. Our dedicated teams can help you achieve your goals and add value to your offerings.

REACH OUT



Konstantin Kariapin

VP of Business Development



konstantin.kariapin@timspark.com

