

#### INTERNSHIP PROGRAM

Data Science





#### **About Us**

Cognifyz
Where Data Meets Intelligence

- Cognifyz Technologies is a leading technology company that specializes in the dynamic field of data science and excels in delivering impactful projects and solutions.
- The company offers a wide range of products and services, including artificial intelligence (AI), machine learning (ML), and data analytics tools.
- Cognifyz Technologies also provides training programs to enhance skills and knowledge in these areas.
- The company focuses on delivering innovative and cutting-edge solutions to meet the evolving needs of businesses.





#### During your internship tenure, it is important to keep in mind the following points

- Enhance your professional presence by updating your LinkedIn profile. Share your achievements, such as the offer letter or internship completion certificate, which you received from us. Don't forget to mention and tag Cognifyz Technologies in your posts. You can use hashtags like #cognifyz #cognifyzTechnologies to showcase your affiliation.
- Maintain academic integrity and respect intellectual property. Plagiarism and copying code are serious offenses that can lead to the termination of your internship and subsequent restriction from future opportunities with us.
- Demonstrate your work by sharing a video showcasing the completion of your tasks on LinkedIn. Remember to tag Cognifyz Technologies in your post and use relevant hashtags like #cognifyz #cognifyzTechnologies to engage with our community.







#### SUBMISSION

- Create a professional video showcasing your internship projects and achievements.
- Host the video on LinkedIn to provide proof of your work and establish credibility among your peers. Consider tagging Cognifyz Technologies in your posts to ensure they are notified of your work.
- A SUBMISSION FORM will be shared later. Till then please continue your task and make a septate file of each level.
- When posting the video on LinkedIn, include the following hashtags to maximize visibility and engagement: #cognifyztechnologies #cognifyz #cognifyztech. Additionally, depending on your internship domain.





### DATA SCIENCE



## TASK LIST

Welcome to our exciting Data Science internship program! To complete this internship, you will have the chance to choose any 2 of 3 levels: Level 1, Level 2, or Level 3. We've designed these levels to cater to your convenience and ensure an engaging and rewarding experience. Additionally, the successful completion of Level 3 (any 2 task out of 4) will further enhance your chances of receiving a stipend.

#### Task 1





Task: Data Exploration and Preprocessing

Explore the dataset and identify the number of rows and columns.

Check for missing values in each column and handle them accordingly.

Perform data type conversion if necessary.

Analyze the distribution of the target variable ("Aggregate rating") and identify any class imbalances.

## Cognifyz Where Data Meets Intelligence

#### Task 2



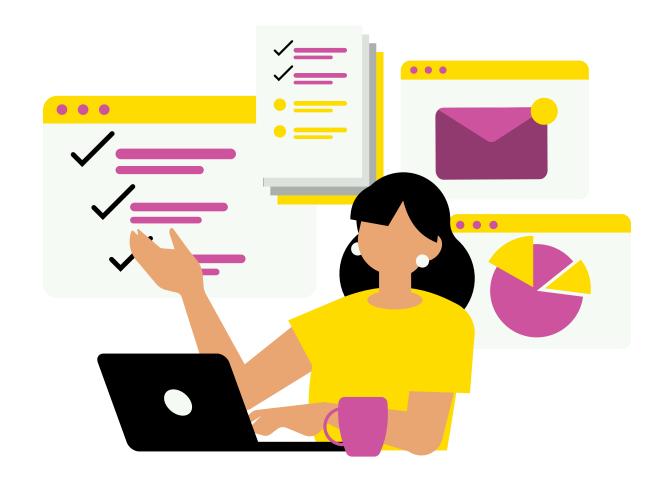
#### **Task: Descriptive Analysis**

Calculate basic statistical measures (mean, median, standard deviation, etc.) for numerical columns.

Explore the distribution of categorical variables like "Country Code," "City," and "Cuisines."

Identify the top cuisines and cities with the highest number of restaurants.

#### Task 3





Task: Geospatial Analysis

Visualize the locations of restaurants on a map using latitude and longitude information.

Analyze the distribution of restaurants across different cities or countries.

Determine if there is any correlation between the restaurant's location and its rating.

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#### Task 1



Determine the percentage of restaurants that offer table booking and online delivery.

Compare the average ratings of restaurants with table booking and those without.

Analyze the availability of online delivery among restaurants with different price ranges.





#### Task 2

Task: Price Range Analysis

Determine the most common price range among all the restaurants.

Calculate the average rating for each price range.

Identify the color that represents the highest average rating among different price ranges.





#### Task 3

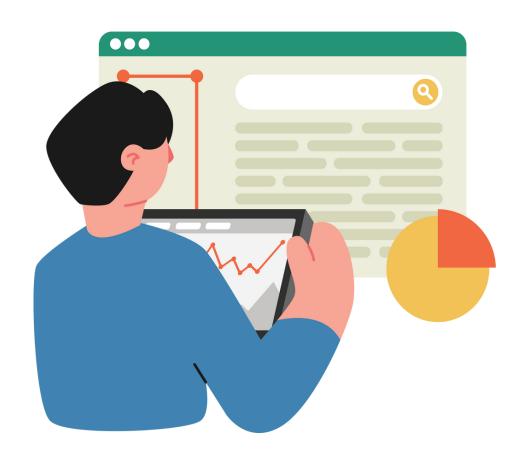


#### **Task: Feature Engineering**

Extract additional features from the existing columns, such as the length of the restaurant name or address.

Create new features like "Has Table Booking" or "Has Online Delivery" by encoding categorical variables.

#### Task 1





#### Task: Predictive Modeling

Build a regression model to predict the aggregate rating of a restaurant based on available features.

Split the dataset into training and testing sets and evaluate the model's performance using appropriate metrics.

Experiment with different algorithms (e.g., linear regression, decision trees, random forest) and compare their performance.



#### Task 2



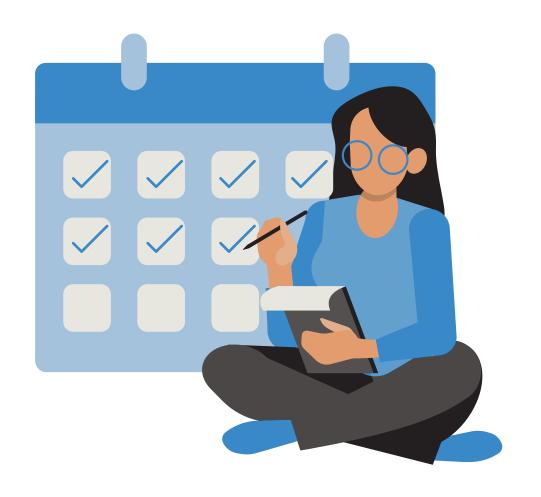
**Task: Customer Preference Analysis** 

Analyze the relationship between the type of cuisine and the restaurant's rating.

Identify the most popular cuisines among customers based on the number of votes.

Determine if there are any specific cuisines that tend to receive higher ratings.

#### Task 3





**Task: Data Visualization** 

Create visualizations to represent the distribution of ratings using different charts (histogram, bar plot, etc.).

Compare the average ratings of different cuisines or cities using appropriate visualizations.

Visualize the relationship between various features and the target variable to gain insights.

# How to Contact Us?

To find out more information, please contact us

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- www.cognifyz.com
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