Indian Food Dataset - Analysis Using Pandas

Introduction

This project analyzes an Indian Food Dataset.
It contains information about popular Indian dishes, their ingredients, preparation times, flavor profiles, regions, and dietary types.

The dataset is publicly available and widely used for educational and learning purposes.

Below are 10 small tasks ("grains") performed using the pandas library in Python.

Tasks

Tasks (Grains):
1. Display the first 5 dishes
2. Find the total number of dishes
3. List all unique regions
4. Count how many dishes are vegetarian
5. Find dishes that take more than 1 hour to prepare
6. List dishes from South India
7. Find dishes with 'rice' in the ingredients
8. Calculate the average preparation time
9. List all desserts
10. Create a new column for total time (Prep Time + Cook Time)

Pandas Code Solutions

```
import pandas as pd

# Load the dataset
df = pd.read_csv("indian_food.csv")

# 1. Display the first 5 dishes
print(df.head())
```

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```
# 2. Total number of dishes
print("Total number of dishes:", df.shape[0])

# 3. List all unique regions
print(df['region'].unique())

# 4. Count how many dishes are vegetarian
veg_dishes = df[df['diet'] == 'Vegetarian']
print("Vegetarian dishes:", veg_dishes.shape[0])

# 5. Find dishes that take more than 1 hour to prepare
df['prep_time'] = pd.to_numeric(df['prep_time'], errors='coerce')
print(df[df['prep_time'] > 60])

# 6. List dishes from South India
print(df[df['region'] == 'South India'])

# 7. Find dishes with 'rice' in ingredients
print(df[df['ingredients'].str.contains('rice', case=False, na=False)])

# 8. Calculate the average preparation time
print("Average Preparation Time:", df['prep_time'].mean())

# 9. List all desserts
print(df[df['course'] == 'Dessert'])

# 10. Create a new column for total time
df['cook_time'] = pd.to_numeric(df['cook_time'], errors='coerce')
df['total_time'] = df['prep_time'] + df['cook_time']
print(df[['name', 'total_time']].head())
```

Name - Jaydeep Sonawane
Roll no - CC40
PRN - 202401050015