COGNORISE INFOTECH

Learn -- Innovate -- Thrive

TASK LISTS

ABOUT US

CognoRise Infotech thrives as a dynamic and varied community that unites individuals with akin aims and eventual achievements. Our primary concentration resides in establishing prospects that encompass a multitude of domains, encompassing the enhancement of leadership acumen, knowledge acquisition, engagement amongst students, and the cultivation of mutual interests.

We hold a steadfast belief in the potency of leadership and its capacity to propel constructive transformation. Hence, we furnish platforms and reservoirs of support for members within our community to cultivate their leadership proficiencies. By means of mentorship initiatives, interactive workshops, and synergistic undertakings, we endow individuals with the authority to assume leadership positions and engender meaningful alterations in their respective domains.

INSTRUCTIONS

o Update your linkedIn profiles.

o For the Data Science internship ,you will need to complete any 3 task at your convenience for successful completion of the internship.

o Create a new Github repository and name it CognoRise Infotech and share the link of the Github repo in the submission form(it will be shared later through email).

o You can refer to online resources such as Google Search and documentation.

SUBMISSION

o A TASK SUBMISSION FORM will be shared later through email . Till then please continue your task.

o Create a demo video of your task, preferably screen recorded.

o The **video can be hosted on LinkedIn** for proof of your work and build credibility among your peers .

o You can tag **CognoRise Infotech on LinkedIn** in such posts.

o Please add **#cognorise** in each of your task video postings on LinkedIn, Additionally, you can also add hashtags such as **#internship #webdevelopment**. for more reach and visibility.

LEVEL 1 TASK
PERSONAL PORTFOLIO

1.**Introduction:** Introduce yourself and state your ambitions.
2.**Background:** List your education and key certifications.
3.**Projects:** Showcase a variety of projects with descriptions, roles, tech used, and outcomes.
4.**Skills:** Display your technical and relevant abilities.
5.**Experience:** Detail work history, responsibilities, and contributions.
6.**Testimonials:** Add endorsements if available.
7.**Blog/Articles:** Include links to demonstrate communication skills.
8.**Achievements:** Feature awards and honors.
9.**Contact:** Provide contact info and LinkedIn profile.

LEVEL 2 TASK
TO-DO LIST

Build a simple to-do list application that allows users to add, edit, and delete tasks. You can use HTML, CSS, and JavaScript for the front-end and store the tasks in local storage or a simple backend server using technologies like Node.js or Flask

LEVEL 3 TASK
TRAVEL BOOKING SYSTEM

1. Designing User Interface: Develop wireframes and create an aesthetically pleasing layout design.

2. Constructing Database Schema: Design a structured database schema to store comprehensive user and booking details.

3. Backend Engineering: Establish the server-side infrastructure and formulate the underlying logic to proficiently manage incoming requests, process reservations, and interface with external APIs.Employ a server-side setup utilizing programming languages such as Node.js, Python, or PHP.

4. Front-End Crafting :Construct an adaptive user interface through the amalgamation of HTML, CSS, and JavaScript.

5. User Registration and Verification: Deliver essential user functionalities, including registration, login, and robust authentication mechanisms.

6. Search and Reservation Capabilities: Enact search functionalities while seamlessly incorporating APIs to attain real-time data access and execute booking procedures.

7. Integration of Payment Mechanisms: Optionally, facilitate secure online transactions and booking confirmations by skillfully integrating a reliable payment gateway.

8. Web Hosting and Version Control: Opt to host the website on platforms such as 000webhost, GitHub Pages, Netlify, or Heroku. Optionally, maintain version control by committing the code to GitLab.

LEVEL 4 TASK
CALCULATOR

For the task of designing a fundamental calculator using CSS, HTML, and JavaScript, your objective involves constructing a user-engaging interface featuring buttons tailored for addition, subtraction, multiplication, and division functionalities.

Within this calculator, a screen display must be integrated to exhibit both user inputs and resultant outputs. The arrangement of buttons should leverage the CSS grid system for a structured layout. Employ event listeners, conditional statements (if-else), mathematical operators, and loops to effectively manage user inputs and execute computations.

Although this project demands a certain level of proficiency, it remains achievable with a fundamental grasp of these technologies.

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ANDROID APP DEVELOPMENT INTERNSHIP

LEVEL 1 TASK

CALCULATOR APP

- Create a straightforward calculator application capable of executing fundamental arithmetic functions, including addition, subtraction, multiplication, and division.
- Enhance the app's capabilities by incorporating features such as input clearance and the ability to handle decimal numbers.

LEVEL 2 TASK

TO-DO LIST APP

Build a simple to-do list application that allows users to add, edit, and delete tasks. You can use HTML, CSS, and JavaScript for the front-end and store the tasks in local storage or a simple backend server using technologies like Node.js or Flask

LEVEL 3 TASK
ALARM CLOCK APP

Build an alarm clock app that allows users to set and manage alarms

- Home Screen: Display current time and date.
- Option to set a new alarm.
- Alarm Setting: Time picker to set the alarm time.
- Option to choose the alarm tone.
- Alarm Management: List of all set alarms with on/off toggle.
- Snooze and Dismiss: Snooze or dismiss the alarm when it rings.
- User Interface: User-friendly and visually appealing design.

LEVEL 4 TASK

BMI CALCULATOR

BMI Calculator App: Develop a user-centric Body Mass Index (BMI) calculator app that facilitates input of weight and height. Upon user input, the app swiftly computes the BMI by dividing weight (in kilograms) by the square of height (in meters). Notably, the app's distinctive feature is its capability to classify the BMI result.

Based on the calculated BMI, the app classifies users into distinct categories such as underweight, normal weight, overweight, or other relevant classifications. This classification mechanism delivers personalized insights into one's weight status. The app's interface will be intuitive and minimalist, prioritizing seamless user interaction. By combining calculation and classification, the app empowers users to make informed health-related decisions while fostering a greater understanding of their own well-being.

LEVEL 5 TASK

Simple Puzzle Game

Simple Puzzle Game Design: Craft an uncomplicated puzzle game where participants reassemble scrambled puzzle fragments within a 3x3 grid to compose a coherent image. Tailored for beginners, this project offers an accessible introduction to game development. Players engage in a delightful challenge of rearranging jumbled pieces by swapping adjacent elements until the picture is reconstructed correctly.

The game's manageable complexity encourages newcomers to explore the game development process step by step. The 3x3 grid setup serves as an apt foundation for beginners to familiarize themselves with basic game mechanics. This undertaking provides a hands-on opportunity to gain practical insights into graphic rendering, user interaction, and problem-solving in the context of game creation.

LEVEL 1 TASK
UNEMPLOYMENT IN INDIA

- Unemployment is measured by the unemployment rate which is the number of people who are unemployed as a percentage of the total labour force.

- We have seen a sharp increase in the unemployment rate during Covid-19,

- so analyzing the unemployment rate can be a good data science project.

- For dataset click here

LEVEL 2 TASK

80 CEREALS

- If you like to eat cereal, do yourself a favor and avoid this dataset at all costs. After seeing these data it will never be the same for me to eat Fruity Pebbles again.

- Do an explained data analysis

- For dataset click here

LEVEL 3 TASK
CUSTOMER PERSONALITY ANALYSIS

- Customer Personality Analysis is a detailed analysis of a company's ideal customers. It helps a business to better understand its customers and makes it easier for them to modify products according to the specific needs, behaviors and concerns of different types of customers.

- Customer personality analysis helps a business to modify its product based on its target customers from different types of customer segments. For example, instead of spending money to market a new product to every customer in the company's database, a company can analyze which customer segment is most likely to buy the product and then market the product only on that particular segment.

- FOR DATASET CLICK HERE

LEVEL 4 TASK

RED WINE QUALITY

- The two datasets are related to red and white variants of the Portuguese "Vinho Verde" wine. For more details, consult the reference [Cortez et al., 2009]. Due to privacy and logistic issues, only physicochemical (inputs) and sensory (the output) variables are available (e.g. there is no data about grape types, wine brand, wine selling price, etc.).

- These datasets can be viewed as classification or regression tasks. The classes are ordered and not balanced (e.g. there are much more normal wines than excellent or poor ones)

- FOR DATASET-HERE

LEVEL 5 TASK
EMPLOYEE SALARIES FOR DIFFERENT JOB ROLES

- Welcome to the Employee Salaries for Different Job Roles Dataset! This dataset provides valuable insights into the compensation and job roles of employees across various industries and regions.

- Whether you're an HR analyst, data scientist, or someone interested in understanding salary trends, this dataset offers a wealth of information to explore and analyze.

- We encourage you to explore the data, perform insightful analyses, and share your findings with the Kaggle community. If you find any interesting patterns or make significant discoveries,

- FOR DATASET-HERE

LEVEL 1 TASK
IRIS FLOWER CLASSIFICATION

- The Iris flower dataset encompasses three distinct species: setosa, versicolor, and virginica.
- These species are discernible through specific measurements. Imagine possessing measurements of Iris flowers categorized by their distinct species.
- The goal is to train a machine learning model capable of learning from these measurements and proficiently categorizing Iris flowers into their corresponding species.
- Employ the Iris dataset to construct a model adept at classifying Iris flowers into distinct species based on their sepal and petal measurements.
- This dataset serves as a prevalent choice for initial classification tasks, making it ideal for introductory learning experiences
- DOWNLOAD THE DATASET HERE

LEVEL 2 TASK

CREDIT CARD FRAUD DETECTION

- Develop a machine learning model designed to detect fraudulent credit card transactions.
- The process involves preprocessing and normalizing transaction data, addressing class imbalance concerns, and partitioning the dataset into training and testing subsets.
- Train a classification algorithm—like logistic regression or random forests—to differentiate between fraudulent and legitimate transactions.
- Assess the model's efficacy using metrics such as precision, recall, and F1-score.
- Additionally, explore strategies like oversampling or undersampling to enhance outcomes and refine the model's performance.
- DOWNLOAD THE DATASET HERE

LEVEL 3 TASK
TITANIC SURVIVAL PREDICTION

- Utilize the Titanic dataset to construct a predictive model determining if a passenger survived the Titanic disaster.
- This project serves as an introductory exercise, offering accessible data for analysis.
- The dataset comprises passenger details encompassing age, gender, ticket class, fare, cabin, and survival outcome.
- By applying this data, you can embark on a classic project that provides insights into survival patterns among Titanic passengers.
- DOWNLOAD THE DATASET HERE

LEVEL 4 TASK
SUPERSTORE SALES PREDICTION

- Time series analysis deals with time series based data to extract patterns for predictions and other characteristics of the data.
- It uses a model for forecasting future values in a small time frame based on previous observations.
- It is widely used for non-stationary data, such as economic data, weather data, stock prices, and retail sales forecasting.
- DOWNLOAD DATASET FROM HERE

LEVEL 5 TASK

CAR PRICE PREDICTION

- Numerous factors contribute to a car's price, encompassing brand reputation, car features, horsepower, mileage efficiency, and more.
- Car price prediction stands as a significant domain within machine learning research.
- If you seek to master the art of training a car price prediction model, this project presents a valuable learning opportunity.
- DOWNLOAD THE DATASET HERE

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MACHINE LEARNING INTERNSHIP

LEVEL 1 TASK
BREAST CANCER CLASSIFICATION

- **Algorithm:** K-Nearest Neighbors (KNN), Random Forest Classifier, Linear Regression, Decision Tree Classifier, Logistic Regression

- **Description:** Classify breast cancer tumors as malignant or benign using features extracted from mammograms.

- For dataset-here

LEVEL 2 TASK
HOUSE PRICE PREDICTION

- **Algorithm:** Linear Regression,random forest regression ,decision tree regression, gradient boosting regressor

- **Description:** Predict house prices based on features like area, number of bedrooms, and location.

- For dataset-here

LEVEL 3 TASK
SPAM EMAIL DETECTION

- **Algorithm:** Logistic Regression,random forest classifier, adaboosting classifier, knn

- **Description:** Create a model to classify emails as spam or not spam based on their content.

- For dataset-here

LEVEL 4 TASK
DIABETES PREDICTION

- **Algorithm:** Random Forest Classifier, K-Nearest Neighbors (KNN), adaboosting classifier,linear Regression, Decision Tree Classifier,

- **Description:** Predict whether a person has diabetes or not using features like glucose levels and BMI.

- For dataset-here

LEVEL 5 TASK
SENTIMENT ANALYSIS ON MOVIE REVIEWS

- **Algorithm:** Naive Bayes Classifier, Random Forest Classifier, K-Nearest Neighbors (KNN), xgboosting classifier,logistic Regression, Decision Tree Classifier,

- **Description:** Perform sentiment analysis on movie reviews to determine if the sentiment is positive or negative.

- For dataset - here

LEVEL 1 TASK
TIC TAC TOE AI

- Create a TIC TAC TOE AI using JavaScript or Python
- You have to create a playable Tic Tac Toe AI
- Refer YouTube or GitHub for inspiration
- Use MINIMAX ALGORITHM to create the AI
- The AI should be working, efficient and playable

LEVEL 2 TASK
PING PONG AI

- Create a PING PONG AI using JavaScript
- You have to create a playable Ping Pong AI
- Refer YouTube or GitHub for inspiration
- The AI should be working, efficient and playable

LEVEL 3 TASK
COVID DETECTION

- Develop a model which detects COVID, PNEUMONIA AND NORMAL from a lung x-rays
- You can use DEEP LEARNING AND CNN models for the prediction
- The model should be efficient and accurate
- The process should be neat and clean

LEVEL 4 TASK
DIGIT RECOGNISER

- Develop a model to recognise digits using kaggle dataset
- You may use Deep Learning and CNN models
- The model should be efficient and working

LEVEL 5 TASK
SENTIMENT ANALYSIS AI

- You need to create a Sentiment Analysis model
- you can use NLP for this project
- The accuracy should be good
- You can use any dataset for this project
- The model should be efficient and working

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JAVA DEVELOPMENT INTERNSHIP

LEVEL 1 TASK

NUMBER GUESSING GAME

1. Generate a random number using the **Random** class.
2. Prompt the user for input using **Scanner**.
3. Compare the user's guess with the generated number.
4. Provide feedback on whether the guess is too high, too low, or correct using conditional statements **(if)**.
5. Use a loop (e.g., **while**) to allow multiple attempts.
6. Track the number of attempts and stop the game after a predefined limit.

LEVEL 2 TASK

Library Catalog System

1. Create a **Book** class with attributes like **title**, **author**, and **status** (checked out or available).
2. Implement a **LibraryCatalog** class to manage books.
3. Add methods to add books, search by title or author, check out, and return books.
4. Use **ArrayList** to store and manage books.

LEVEL 3 TASK

CALCULATOR APP

1. Prompt the user for two numbers and an operator using **Scanner**.
2. Perform the corresponding arithmetic operation based on the operator (**+, -, *, /**).
3. Display the result.
4. Use **try** and **catch** to handle division by zero or other exceptions.

LEVEL 4 TASK
HANGMAN GAME

- Create an array or list of words to choose from.
- Select a random word using the **Random** class.
- Use a loop to iterate through each turn.
- Prompt the user for a letter using **Scanner**.
- Check if the letter is in the word and update the display.
- Display the hangman figure based on incorrect guesses.

LEVEL 5 TASK
STUDENT COURSE REGISTRATION SYSTEM

- Course Database: Store course information, including course code, title, description, capacity, and schedule.
- Student Database: Store student information, including student ID, name, and registered courses.
- Course Listing: Display available courses with details and available slots.
- Student Registration: Allow students to register for courses from the available options.
- Course Removal: Enable students to drop courses they have registered for.

LEVEL 1 TASK
CALCULATOR

- Design a simple calculator with basic arithmetic operations.

- Prompt the user to input two numbers and an operation choice.

- Perform the calculation and display the result.

LEVEL 2 TASK

PASSWORD GENERATOR

- A password generator is a useful tool that generates strong and random passwords for users. This project aims to create a password generator application using Python, allowing user to specify the length and complexity of the password.
- User Input: Prompt the user to specify the desired length of the password.
- Generate Password: Use a combination of random characters to generate a password of the specified length.
- Display the Password: Print the generated password on the screen.

LEVEL 3 TASK
Rock, Paper, Scissors Game

- **User Input:** Prompt users to select rock, paper, or scissors.
- **Computer Selection:** Randomly generate the computer's choice.
- **Game Logic:** Determine the winner based on user and computer selections. Rock beats scissors, scissors beat paper, and paper beats rock.
- **Display Result:** Present user and computer choices. Display outcomes: win, lose, or tie.
- **Score Tracking (Optional):** Record user and computer scores for multiple rounds.
- **Play Again:** Ask if users want another round.
- **User Interface:** Design a user-friendly interface with clear instructions and feedback.

LEVEL 4 TASK

HANGMAN GAME

- **Word List:** Create a list of words for the game.
- **Random Word:** Select a random word from the list.
- **Initial Display:** Show empty hangman figure and underscores for unguessed letters.
- **User Input:** Prompt the user for a letter guess.
- **Check Letter:** Validate the guess and check if it's in the word.
- **Update State:** Reveal correctly guessed letters in the word.
- **Hangman Display:** Display hangman figure for incorrect guesses.
- **Win/Loss Check:** Determine win or loss conditions.
- **Play Again:** Ask if the player wants to play another round.
- **User Interface:** Design a clear interface showing hangman figure, word state, and feedback

LEVEL 5 TASK

DICE ROLLING SIMULATOR

- Create a simple Python program that simulates rolling dice. Users can specify the number of sides on the dice and the number of rolls.
- The program generates random numbers for each roll and displays the results.
- It's a quick and fun way to emulate the experience of rolling dice, commonly used in board games or tabletop role-playing games.
- The simulator allows users to explore the outcomes of dice rolls without the physical dice.

LEVEL 1 TASK
MAGAZINES AND BROCHURES

● Designing the look and feel of a magazine or brochure is a complex project

● It involves a range of elements, including advertising, visual representation, photography, art, and graphic design. Working on a magazine design will expose you to the design principles and standards used in print media

LEVEL 2 TASK

INFOGRAPHICS

- Infographics utilize images, data visualizations, typography, and statistical graphics to convey a concise narrative or share information.

- Engaging in an infographic project provides hands-on familiarity with essential tools like Canva and Venngage, offering an opportunity to harness creativity in presenting data in visually captivating, impactful, and efficient ways.

LEVEL 3 TASK

BUSINESS CARD

- Engaging in this design challenge offers a platform to hone the aforementioned skills. Business cards serve as crucial introduction tools for every enterprise and embody the company's brand identity.
- Hence, skillful typography and innovative design are pivotal in capturing the essence of the company effectively.

LEVEL 4 TASK
FITNESS TRACKING DASHBOARD

- **Fitness Tracking Dashboard:** Design a fitness tracking dashboard that provides users with a comprehensive overview of their activities and progress.
- **Requirements:** Understand user needs and fitness goals.
- **Wireframe:** Sketch dashboard layout with components.
- **Colors:** Choose energizing color scheme for readability.
- **Components:** Design charts, progress bars, and data cards.
- **Layout:** Arrange components in a balanced way.
- **Typography and Icons:** Select readable fonts and fitness-related icons.
- **Interactivity:** Add buttons, dropdowns, and hover effects.
- **User Profiles:** Include profile section for customization.
- **Mobile Responsive:** Ensure usability on mobile devices.

LEVEL 5 TASK
E COMMERCE PRODUCT PAGE

- **E-Commerce Product Page:** Design a clean and user-friendly product page for an e-commerce website, highlighting key product details and facilitating smooth purchasing.

- **User Understanding:** Understand your target audience and their preferences.
- **Product Display:** Present clear product images, allowing zooming for detailed views.
- **Product Information:** Display essential details: name, price, description, and availability.
- **Call-to-Action:** Place a prominent "Add to Cart" or "Buy Now" button for easy purchase.
- **Related Products:** Suggest related items to encourage additional browsing.
- **Visual Hierarchy:** Organize content with clear hierarchy for easy scanning.

Internship Aim
Learning and Advancement

- The purpose of this internship is to learn and grow

- Our internship is designed to facilitate your learning journey and foster growth.The choice to seek guidance is entirely yours.

- The provided tasks may appear simple or complex.

- We anticipate your approach to be marked by professional commitment, dedicating the attention each task merits.

CONNECT WITH US

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