

# Internship Program

**Machine Learning** 





# **About Us**

- Saiket Systems is a prominent technology company renowned for its expertise in the dynamic fields of cloud computing, blockchain, artificial intelligence (AI), and machine learning (ML).
- The company excels in delivering impactful projects and solutions tailored to the evolving needs of businesses.
- Saiket Systems offers a diverse array of products and services, including robust cloud computing solutions, innovative blockchain technologies, advanced AI systems, and sophisticated ML algorithms.





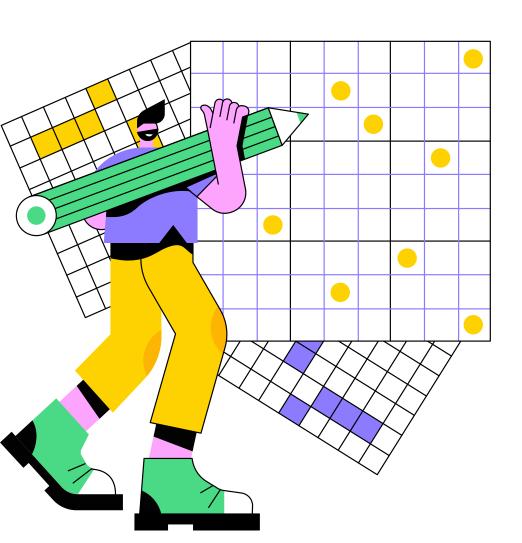
# Instructions

- Update your LinkedIn profile with your achievements, like offer letters or internship certificates from SaiKet Systems. Mention and tag SaiKet Systems in your posts.
   Use hashtags like #SaiKetSystemsJourney #SaiKetExperience #FutureWithSaiKet to showcase your association.
- Avoid plagiarism and code duplication. These violations can lead to internship termination and future opportunities loss with us.
- Create a video showcasing your completed tasks. Post it
  on LinkedIn, tag SaiKet Systems, and use hashtags like
  #SaiKetInnovation #SaiKetAchievements
  #SaiKetProjects 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 Saiket Systems 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 separate file of each level.
- When posting the video on LinkedIn, include the following hashtags to maximize visibility and engagement: #saiketsystems #saiket #saiketsys. Additionally, depending on your internship domain.

Project Title: Customer Churn Analysis and Prediction

# **Project Overview:**

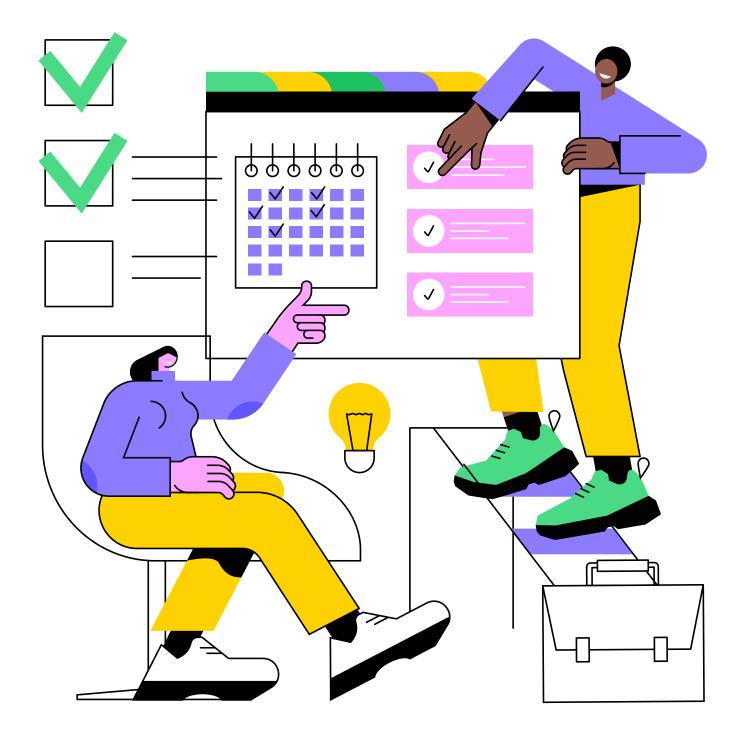
The project aims to analyze customer churn in a telecommunications company and develop predictive models to identify at-risk customers. The ultimate goal is to provide actionable insights and recommendations to reduce churn and improve customer retention.

Note: You have to complete 4 tasks out of 6.









# **Tasks 1: Data Preparation**

# **Description:**

 Load and preprocess the dataset, addressing missing values, and encoding categorical variables for machine learning readiness.

- Data preprocessing techniques
- Handling missing values
- Categorical variable encoding



# **Description:**

Divide the data into training (80%) and testing (20%) sets for model training and evaluation, ensuring a representative split.

- Data splitting methodologies
- Understanding of training/testing dataset requirements









#### **Tasks 3: Feature Selection**

# **Description**

 Identify and select relevant features (attributes) influencing churn prediction, such as contract type, monthly charges, and tenure.

- Feature relevance analysis
- Domain knowledge for identifying influential attributes

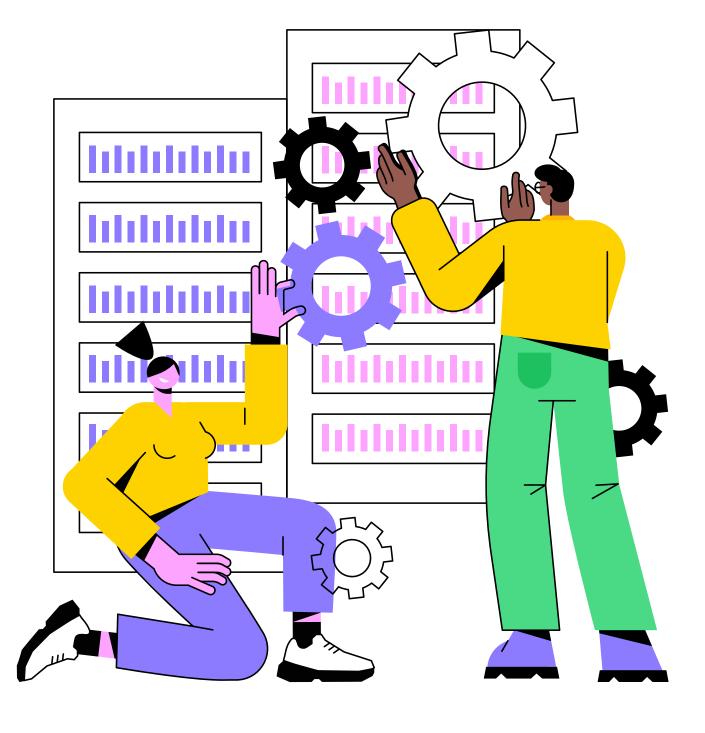


## **Description:**

Choose a suitable binary classification algorithm, considering options like logistic regression, decision trees, random forests, or gradient boosting.

- Understanding of binary classification algorithms
- Selection based on dataset characteristics









## **Tasks 5: Model Training**

# **Description:**

Train the selected machine learning model using the training dataset. Utilize chosen features as input and "Churn" column as the target variable.

- Model training techniques
- Data input-output mapping for training



#### **Tasks 6: Model Evaluation**

## **Description:**

Assess the model's performance on the testing dataset using metrics like accuracy, precision, recall, F1-score, and ROC-AUC.

- Model evaluation metrics understanding
- Interpretation of evaluation results



# How to Contact Us?

To find out more information, please contact us

- in @saiketsystems
- **support@saiket.in**
- www.saiket.in
- @saiket\_systems

