



Sadguru Balumama Shikshan Prasarak Mandal's
K.P. PATIL INSTITUTE OF TECHNOLOGY

(DTE CODE : 6814) (MSBTE Code : 1661)

Approved by AICTE, DTE Mumbai & Govt. of Maharashtra, Affiliated to MSBTE Mumbai

Internships Daily Diary(2025-26)

Department of Artificial Intelligence & Machine Learning

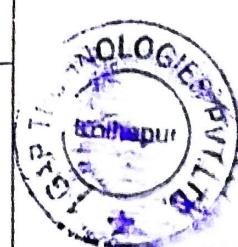
Program Code : AN5K

Name of the Student: Saurabh Bhikaji Chougale

Name of the Mentor (Faculty): Mrs. P. M. Kumbhar

Name of the Mentor (Industry): Mr. Abhijit Gaikwad

Enrollment Number: 23213500039

Week	Day & Date	Discussion Topics/Activity	Details of Work Allotted Till Next Session /Corrections Suggested/Faculty Remarks	Signature of Industry Mentor
Week 1	Mon, Date <u>15.7.25</u>	Data Load & Data cleaning	imported data & removed missing duplicate rows	
	Tue, Date <u>16.7.25</u>	EBA & Visualization Insights	Plotted graphs to explore data relationships	 
	Wed, Date <u>16.7.25</u>	Model selection and feature Encoding	trained models & handled categorical features	
	Thu, Date <u>17.7.25</u>	Model Tuning & Pipeline creation	Improved accuracy with GridSearchCV Pipeline	
	Fri, Date <u>18.7.25</u>	Streamlit App Development started	designed UI & connected Prediction model	
	Sat, Date <u>19.7.25</u>	final Touches and Documentation	validated inputs & wrote README file	



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Week No: 7

Day: Monday

Date: 14.7.25

Topic :- Data Loading & Cleaning

Today I started working on a new machine learning project called "car Price Prediction".

The goal of this project is to predict the price of a used car based on its features like year, fuel type, kilometers driven, etc.

I first loaded the data into my Jupyter Notebook. Then I moved on to "data cleaning". I looked for missing values & removed any duplicate & to make sure data is accurate & clean. This step is really important because any small mistake here can affect the model's accuracy later on. It was a productive start to the week.



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Week No: 7

Day: Tuesday

Date: 15.7.25

Topic : EDA & Visualization Insights

Today I focused on doing "Exploratory Data Analysis (EDA).

I used matplotlib & seaborn libraries to create graphs like bar charts, histograms, scatter plots.

I also checked how old the car is and how that affects the price. It was clear that "newer cars have higher prices", which makes sense.

By the end of the day, I felt much more familiar with the dataset.

EDA is like getting to know your data deeply before you start building the model. It was both interesting & fun to see data in a visual form.



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Week No: 7

Day: Wednesday

Date: 16.7.25

Topic :- Model selection & feature encoding

After understanding the data, I moved on to feature engineering and model selection.

I converted the categorical columns into numbers using Label Encoding, since machine learning models work with numerical data. Then I split the dataset into "train & test sets".

I tried different regression models. I used performance metrics like R^2 score & mean absolute error.

I now understand how trying multiple models helps in selecting the best one.



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Week No: 7

Day: Thursday

Date: 17.7.25

Topic :- Model Tuning & Pipeline Creation

Today, I focused on improve my Random Forest model using a technique called hyperparameter tuning with GridSearchCV.

After tuning, I got even better accuracy, and I felt happy to see my model giving more realistic predictions.

I created a machine learning pipeline, encoding, scaling process. This helpful for both simplicity & feature deployment.

I also saved my model as a "Pickle file", so I can easily use it in my Streamlit app later. It was technical but satisfying day.



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Week No: 7

Day: Friday

Date: 18.7.25

Topic:- Streamlit App development started

Today was all about making the project interactive & user-friendly. I started building a "web application using Streamlit. I added a "Predict Price" button which runs the model & shows the estimated selling price. I connected the "pickle model" to the Streamlit app & tested it with a few example inputs. It worked. Seeing the prediction output on the screen felt really satisfying. It's one thing to train a model in a notebook, but putting it into an actual app makes it more useful & real world friendly.



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Week No: 7

Day: Saturday

Date: 19.7.25

Topic :- Final Touches & Documentation

on the last day of week, I spent time "polishing streamlit app". I also added a title & some instructions to make the app beginner-friendly.

Lastly, I worked on writing a "README file" for my GitHub project. I explained the objective of the project, steps involved and how to run the app.

I feel very proud of this week's work. I was able to complete an "end-to-end ML Project" from data preprocessing to model training, and finally deploying into a working application.