ACTIVITY LOG FOR THE FOURTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day–1	Basics of Regression	Understood how regression models are used to predict continuous outcomes.	
Day-2	Linear Regression	Gained a solid understanding of linear regression, interpreting coefficients, and predicting outcomes.	
Day–3	Polynomial Regression	Learned to implement, evaluate polynomial regression models	
Day–4	Basics of Classification	Acquired foundational knowledge of classification methods and their applications in predicting categorical outcomes.	
Day–5	K-Nearest Neighbours	Learned to implement KNN, understand distance metrics, and evaluate model performance.	
Day–6	Naïve Bayes	Gained understanding of Naïve Bayes, including its assumptions, implementation, and performance evaluation.	

WEEKLY REPORT

Week-4 (From Dt 10-06-2024 to Dt 15-06-2024)

Objective of the Activity Done:
Detailed Report:
During the fourth week, I delved into both regression and classification techniques,
which are fundamental to machine learning. The week commenced with an
exploration of the basics of regression, where I learned about the fundamental
principles of regression analysis. This included understanding how regression
models are used to predict continuous outcomes and the significance of various
model parameters. On the second day, I focused on linear regression, specifically
modeling the relationship between dependent and independent variables. I
implemented simple and multiple linear regression models, learned to interpret
coefficients, and assessed model performance. The third day was dedicated to
polynomial regression, an extension of linear regression that allows for capturing
non-linear relationships by modeling the data as an nth-degree polynomial. I
focused on understanding the trade-offs between model complexity and overfitting.
Midweek, I shifted my focus to classification techniques. I started with a basic
overview of classification, learning about different methods and their applications in
predicting categorical outcomes. Following this, I explored the K-Nearest
Neighbors (KNN) algorithm, which is a simple, yet powerful method for
classification tasks. Towards end of the week, I studied the Naïve Bayes classifier.
By the end of week, I understood both regression and classification techniques.

ACTIVITY LOG FOR THE FIFTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day–1	Bayes Theorem	Gained a understanding of Bayes Theorem and how it underpins various classification methods	
Day-2	Decision Tree	Learned to build and interpret decision trees, understand splitting criteria	
Day–3	SVM	Acquired knowledge of SVM principles, how to implement them, and their advantages.	
Day–4	Regression Based SVM	Learned the application of SVM for regression, understanding how it differs from traditional SVM classification.	
Day–5	Classes of Ensemble Classification	Gained insights into different ensemble techniques like bagging, boosting, and stacking.	
Day–6	Voting Classifiers	Learned to implement voting classifiers, hard vs. soft voting, and evaluate the combined model's performance.	

WEEKLY REPORT

Week-5 (From Dt 17-06-2024 to Dt 22-06-2024)

Objective of the Activity Done:
Detailed Report:
During the fifth week, I focused on advanced classification techniques. I started
with Bayes Theorem, learning its application in probabilistic classification. Next, I
explored Decision Trees, understanding their construction, splitting criteria, and
evaluation. Midweek, I studied Support Vector Machines (SVM) for classification
tasks, followed by Regression-Based SVM for regression tasks. Towards the end of
the week, I delved into ensemble classification methods like bagging, boosting, and
stacking, and their role in improving model performance. Finally, I explored Voting
Classifiers, learning to combine multiple models to enhance classification accuracy.
Learned to implement voting classifiers, hard vs. soft voting, and evaluate the
combined model's performance. This week significantly enhanced my
understanding and skills in advanced classification techniques.

ACTIVITY LOG FOR THE SIXTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day–1	ADA Boost Techniques	Learned to enhance model performance using ADA Boost.	
Day-2	XG Boost	Gained knowledge of XG Boost's efficiency and application.	
Day–3	Gradient Boost	Understood how to sequentially build models using Gradient Boost..	
Day–4	Basics of Clustering	Learned foundational concepts of clustering.	
Day–5	K-Means Algorithm	Practiced K-Means algorithm for clustering and for partitioning datasets into distinct clusters based on similarity.	
Day–6	DB Scan Algorithm	Understood DB Scan's ability to identify clusters of various shapes and densities.	

WEEKLY REPORT

Week-6 (From Dt 24-06-2024 to Dt 29-06-2024)

Objective of the Activity Done:
Detailed Report:
During the sixth week, I focused on boosting techniques and clustering algorithms,
crucial for both enhancing model performance and understanding unsupervised
learning. The week began with ADA Boost techniques, where I learned how to
improve weak classifiers by iteratively adjusting weights to minimize errors. On the
second day, I explored XG Boost, delving into its efficient implementation and
ability to handle large datasets. Midweek, I studied Gradient Boost, understanding
how it builds models sequentially to reduce prediction errors. Towards the end of
the week, I transitioned to clustering, an unsupervised learning technique. I began
with the basics of clustering, learning its importance in grouping similar data points.
I then explored the K-Means algorithm, practicing its application in partitioning
datasets into distinct clusters based on similarity. Finally, I studied the DB Scan
algorithm, understanding its ability to identify clusters of varying shapes and
densities without specifying the number of clusters beforehand. This week
significantly enhanced my understanding of boosting techniques for improving
model accuracy and clustering methods for unsupervised learning tasks, equipping
me with practical skills to apply these methods in real-world scenarios.

ACTIVITY LOG FOR THE SIXTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day–1	Revised Basic Java Concepts	Revised basic Java concepts, including syntax, data types, and control structures.	
Day-2	Java OOPS Concepts	Explored Java OOPS concepts like inheritance, polymorphism, encapsulation, and abstraction.	
Day–3	Introduction To Android Studio	Introduced to Android Studio, learning about its features and development environment.	
Day–4	Setup Of Android Studio	Set up Android Studio, including installing necessary SDKs.	
Day–5	Demonstrated a Small example	Demonstrated a small example project in Android Studio, covering basic UI components.	
Day–6	Done an small project As assignment	Completed a small project as an assignment, applying learned concepts to develop a Android application.	

WEEKLY REPORT

Week-6 (From Dt 24-06-2024 to Dt 29-06-2024)

Objective of the Activity Done:
Detailed Report:
During the sixth week of my internship, I focused on revising Java basics and
diving into Android development. The week began with a revision of basic Java
concepts, including syntax, data types, and control structures, refreshing my
understanding of core Java principles. On the second day, I explored Java OOPS
concepts such as inheritance, polymorphism, encapsulation, and abstraction, which
deepened my grasp of object-oriented programming in Java. Midweek, I was
introduced to Android Studio, learning about its features and how to navigate the
development environment. The next day was dedicated to setting up Android
Studio, including installing necessary SDKs and configuring the environment for
development. This setup process was crucial for enabling the development of
Android applications. Towards the end of the week, I demonstrated a small example
project in Android Studio, which covered the creation of basic UI components and
functionality. This hands-on experience helped solidify my understanding of
Android app development. Finally, I completed a small project as an assignment,
applying the concepts learned throughout the week to develop a functional Android
application.

ACTIVITY LOG FOR THE SECOND WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day–1	Completed SRS Project	Completed the SRS project, finalizing all requirements and documentation.	
Day-2	Started the Athota Project	Started the Athota Project, initiating project planning and setup.	
Day–3	Worked on Real Estate Project	Worked on the Real Estate Project, focusing on data integration and interface design.	
Day–4	Worked on Athota Project	Continued work on the Athota Project, implementing key features and functionalities.	
Day–5	Completed the Athota project	Completed the Athota Project, finalizing all deliverables and conducting a review.	

WEEKLY REPORT

Week-2 (From Dt 27-06-2024 to Dt 04-07-2024)

Objective of the Activity Done:
Detailed Report:
During the second week, I focused on completing existing projects and advancing
new ones. The week began with the completion of the SRS project, where I
finalized all requirements and documentation, enhancing my skills in gathering and
documenting project requirements. On the second day, I started the Athota Project,
which involved initiating project planning and setup, providing me with valuable
experience in project initiation. Midweek, I worked on the Real Estate Project,
focusing on data integration and interface design. This allowed me to develop skills
in integrating data and designing user interfaces for real estate applications.
Following this, I continued work on the Athota Project, implementing key features
and functionalities, which improved my abilities in feature implementation and
project management. Towards the end of the week, I advanced the Real Estate
Project by enhancing its functionality and performance, gaining proficiency in
optimizing application performance and adding advanced functionalities. Finally, I
completed the Athota Project, finalizing all deliverables and conducting a review.
This experience gave me a comprehensive understanding of the processes involved
in project completion and review. This week was instrumental in enhancing my
project management and development skills across multiple projects.

ACTIVITY LOG FOR THE THIRD WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day–1	Learned Typescript	Learned TypeScript, understanding its syntax and features.	
Day-2	Started the Herald Project	Started the Herald Project, focusing on project setup and initial development tasks.	
Day–3	Worked on Herald Estate Project	Worked on the Herald Estate Project, changing the UI on the home page to improve user experience.	
Day–4	Worked on Herald Project	Continued work on the Herald Project, adding filters to enhance functionality.	
Day–5	Worked on Herald Project	Worked on the Herald Project, resolving issues and ensuring smooth functionality.	

WEEKLY REPORT

Week-3 (From Dt 08-07-2024 to Dt 15-07-2024)

Objective of the Activity Done:
Detailed Report:
During the third week, I focused on learning TypeScript and developing the Herald
Project. The week began with learning TypeScript, where I familiarized myself with
its syntax and features, gaining proficiency in using this programming language. On
the second day, I started the Herald Project, focusing on project setup and initial
development tasks, which provided valuable experience in initiating new projects.
Midweek, I worked on the Herald Estate Project, specifically changing the UI on
the home page to improve user experience. This task helped me develop skills in UI
design and enhancement. Following this, I continued work on the Herald Project,
adding filters to enhance functionality. This improved my abilities in implementing
filtering features for better data handling. Towards the end of the week, I worked on
resolving issues in the Herald Project, ensuring smooth functionality. This involved
troubleshooting and fixing various project issues, which significantly enhanced my
problem-solving skills. I have also done assignments on React which helps me to
enrich my skills in React. This week was instrumental in advancing my knowledge
of TypeScript and developing practical skills in project management and
development.