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| Name Of The Student | Himanshu |
| Internship Project Topic | TCS iON RIO-210: Build a Classification Model for Drug Trials Dataset |
| Name of the Organization | TCS iON |
| Name of the Industry Mentor | Himdweep Walia |
| Name of the Institute | Amity University |

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| Date | Day # | Hours Spent |
| 05-06-2024 | Day-43 | 6 Hours |
| Activities done during the day:  **Project Hands-on – Model Building**  **Link of the google drive google Colab file :-**  <https://colab.research.google.com/drive/1VQRq0l6oc9Uj4cOOqiuhkfS1JmpKr3fU?usp=sharing>  **Model Building**  Model building in machine learning is the process of creating a mathematical representation of a real-world process or problem using data. This representation, often referred to as a model, can then be used to make predictions, gain insights, or automate decision-making.  **Code**  **Random Forest Model**  # Build the random forest classifier model  model = RandomForestClassifier(n\_estimators=100, random\_state=42)  # Train the model  model.fit(X\_train, y\_train)  # Make predictions on the testing set  y\_pred = model.predict(X\_test)  # Evaluate the model  report = classification\_report(y\_test, y\_pred, digits=3)  print(report)  **KNN MODEL**  model = KNeighborsClassifier()  # Train the model  model.fit(X\_train, y\_train)  # Make predictions on the testing set  y\_pred = model.predict(X\_test)  # Evaluate the model  report = classification\_report(y\_test, y\_pred, digits=3)  print(report)  **Gradient Boosting Model**  model = GradientBoostingClassifier()  # Train the model  model.fit(X\_train, y\_train)  # Make predictions on the testing set  y\_pred = model.predict(X\_test)  # Evaluate the model  report = classification\_report(y\_test, y\_pred)  print(report) | | |
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