Work Breakdown Structure

Intern Name: Prathamesh Narendra Bawane

Domain: Machine Learning

Mode: Online / Remote

Project 1 – Student Placement Prediction

Project Goal:

To develop a predictive model that estimates a student's placement status and calculates expected graduation year.

Phases:

1. Requirement Gathering
2. Data Preparation
3. Model Building & Testing
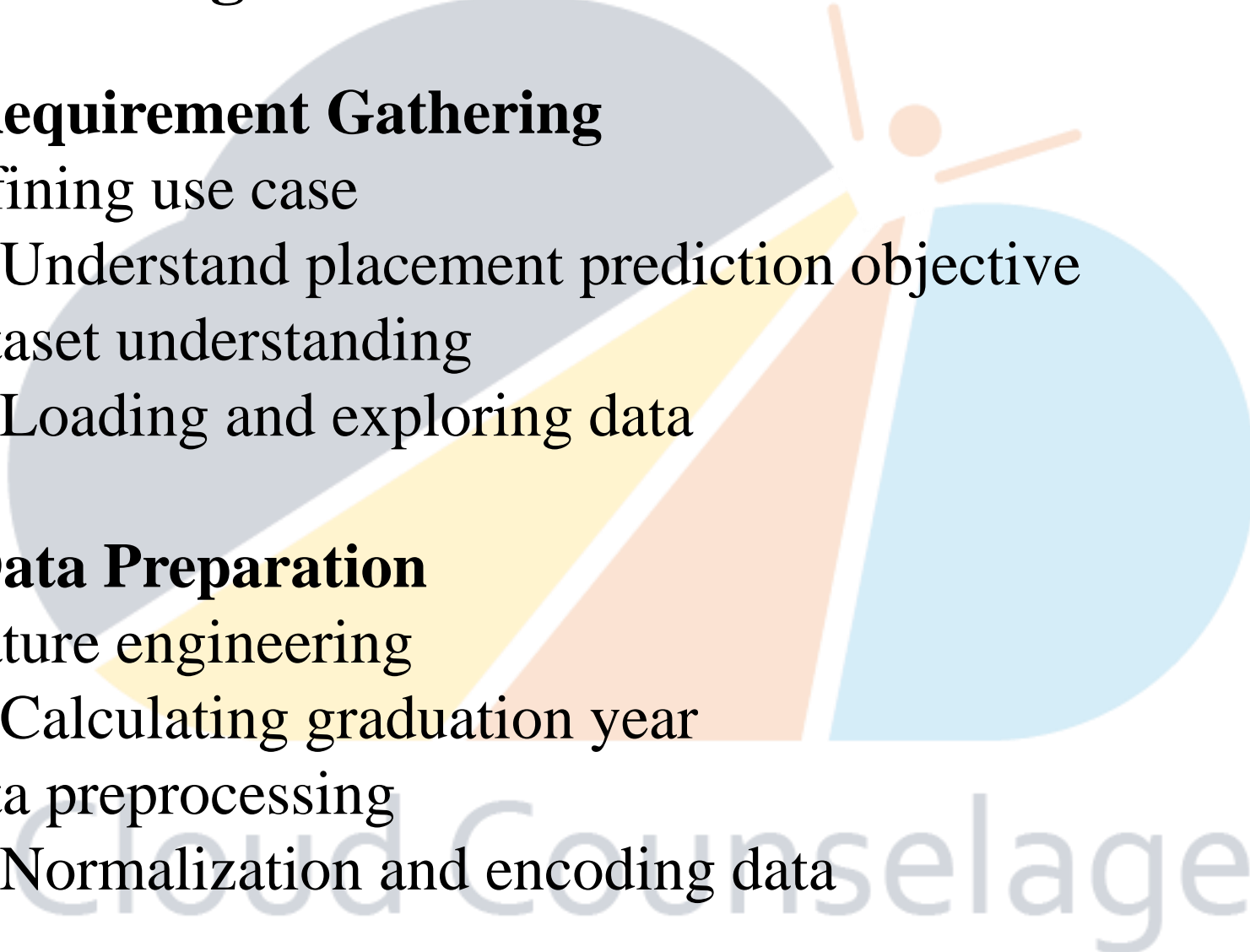4. Insights & Reporting

Stages & Activities/Deliverables:

Phase 1: Requirement Gathering

- Stage: Defining use case
  - Task: Understand placement prediction objective
- Stage: Dataset understanding
  - Task: Loading and exploring data

Phase 2: Data Preparation

- Stage: Feature engineering
  - Task: Calculating graduation year
- Stage: Data preprocessing
  - Task: Normalization and encoding data

Phase 3: Model Building & Testing

- Stage: Model training
  - Task: Applying classification algorithms
- Stage: Evaluation
  - Task: Confusion matrix, F1-score

Phase 4: Insights & Reporting

- Stage: Result interpretation
  - Task: Identify key placement factors
- Stage: Report creation
  - Task: Create charts, final report

Project 2 – Career Path Prediction and Guidance System

Project Goal:

To design a machine learning system that guides students in selecting a suitable career path based on their academic performance and interests.

Phases:

1. Problem Understanding & Data Collection
2. Data Preprocessing
3. Model Development & Evaluation
4. Deployment/Presentation

Phase 1: Problem Understanding & Data Collection

- Stage: Defining problem scope
  - Task: Studying project requirements
  - Task: Defining success metrics
- Stage: Collecting dataset
  - Task: Exploring PS2_Dataset.csv

Phase 2: Data Preprocessing

- Stage: Data cleaning
  - Task: Handle missing values, outliers
- Stage: Feature selection
  - Task: Selecting relevant features

Phase 3: Model Development & Evaluation

•Stage: Model training
  • Task: Try multiple ML algorithms

•Stage: Model evaluation
  • Task: Use accuracy, precision, recall

Phase 4: Deployment/Presentation

•Stage: Final implementation
  • Task: Code and notebook finalization

•Stage: Visualization
  • Task: Building graphs, career recommendations

•Stage: Presentation
  • Task: Prepare final report and slides

Thank You