**Week 4: Preliminary design considerations**

**Employability Analytics for Cybersecurity Jobs**

**Group - 17**

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## Problem Statement

## Someone can use these strategies to acquire optimal talent by examining demanded cloud-based cybersecurity skills and conducting pay benchmarking along with job market trend analysis for both HR experts and recruitment specialists to make better choices.

## Problem Components and Modules

|  |  |  |
| --- | --- | --- |
| **Component of Problem Statement** | **Module to Include** | **Relevant Data (Variables/Fields)** |
| Identifying high-demand skills | Skills Demand Analysis | Job title, Cloud skills required (e.g., AWS, Azure), Certifications, Experience level |
| Benchmarking salaries for cloud roles | Salary Benchmarking | Job title, Average salary, Salary range, Location, Years of experience |
| Analyzing job market trends | Market Trends Overview | Job title frequency, Location, Employment type, Posting date |
| Recognizing workforce gaps in roles | Cloud Workforce Gap Identification | Current job openings, Required qualifications, Industry demand |
| Improve recruitment strategies | Recruitment Strategy enhancing | Hiring trends, Candidate profiles, Recruitment timelines |

## Identified Tables, Variables, and Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| **Table Name** | **Variable/Field** | **Data Type** | **Description** |
| cyber\_security\_jobs.csv | Job Title | String | Title of the cloud-based cybersecurity job |
| cyber\_security\_jobs.csv | Salary (Annual) | Float | Annual salary for the roles |
| cyber\_security\_jobs.csv | Salary (Monthly) | Float | Monthly salary for the cloud roles |
| cyber\_security\_jobs.csv | Company Name | String | Name of the hiring company |
| cyber\_security\_jobs.csv | Location | String | Geographic location of the job |
| cyber\_security\_jobs.csv | Employment Type | String | Full-time, part-time, contract, etc. |
| cyber\_security\_jobs.csv | Required Skills | String | List of cloud-specific skills required (e.g., AWS, Azure) |
| cyber\_security\_jobs.csv | Certifications | String | Certifications required for the cloud position |
| cyber\_security\_jobs.csv | Experience Level | String | Entry-level, mid-level, senior, etc. |
| cyber\_security\_jobs.csv | Posting Date | Date | Date when the job was posted |