

SCENARIO

A Student is preparing for their exams

1. Plan

Objective: To optimize study strategies and improve exam performance by identifying areas of strength and weakness.

- Which subjects or topics need more attention?
- How can study time be effectively allocated?
- What study methods are most effective?

2. Prepare

Data Collection:

- Past exam scores for different subjects and topics
- Time spent studying each subject
- Notes on study methods used (e.g., flashcards, practice tests, group study)
- Self-assessment scores or quizzes
- Schedule of upcoming exams

Data Cleaning:

- Ensure all past scores are recorded accurately
- Remove any incomplete or inconsistent data entries
- Standardize the format of study time records

3. Process

Data Exploration:

- Calculate average scores for each subject and topic
- Visualize score distributions (e.g., bar charts, pie charts)
- Analyze study time distribution across subjects

Data Transformation:

- Normalize study time data (e.g., hours per week)
- Create a performance index (e.g., score per hour of study)
- Categorize topics by difficulty based on past performance

4. Analyze

Performance Analysis:

- Identify subjects and topics with the lowest average scores
- Correlate study time with performance to identify effective study habits
- Determine which study methods correlate with higher scores

Gap Analysis:

- Highlight areas where performance is below average
- Assess if sufficient study time has been allocated to weak areas
- Evaluate the impact of different study methods on performance

5. Share

Visualization and Reporting:

- Create charts and graphs to represent study habits and performance
- Prepare a detailed report summarizing insights and recommendations
- Develop a study schedule prioritizing weak areas and effective study methods

Presentation:

- Present findings to peers or a study group for feedback
- Use visual aids (e.g., graphs showing performance trends) to support conclusions

6. Act

Implementation:

- Adjust study schedule to allocate more time to weaker subjects
- Adopt effective study methods identified in the analysis (e.g., practice tests for topics with low scores)
- Set specific goals for each study session based on identified gaps

Monitoring:

- Continuously track study time and performance in real-time
- Adjust study strategies based on ongoing performance data
- Use regular self-assessment quizzes to monitor progress