



FutureLearn\_CyberSecurity

## FutureLearn Cyber Security Retention Analysis

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This project analyses learner engagement, retention, and dropout patterns in the FutureLearn Cyber Security course (Runs 6 and 7) using the CRISP-DM framework.

The analysis is aimed at course designers, educators, and platform stakeholders who want to understand when learners disengage and which factors are associated with early dropout in online courses.

The main research questions are:

Cycle 1: When do learners drop out, and what are the overall engagement and retention patterns?

Cycle 2: What factors are associated with early dropout, based on leaving survey responses and weekly sentiment data?

### DATA DESCRIPTION

The project uses learning analytics data from the FutureLearn Cyber Security course (Runs 6 and 7). The raw datasets include:

- Enrolment data (learner demographics and roles)
- Step activity logs (learner engagement over weeks)
- Team member data (used to exclude non-learners)
- Leaving survey responses (<sup>2</sup>reasons for leaving)
- Weekly sentiment survey responses (experience ratings)

aggregated datasets for analysis. # - munge ## R scripts for data loading, cleaning, and feature creation.  
# - reports ## R Markdown file and knitted report outputs. # - logs ## (Unused) # - src ## (Unused)  
# - tests ## (Unused)