# Extract Insights from The CADT Students' Code Logs During Practical Sessions

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## 1. Internship Subject

In our modern technology, programming languages are essential as they serve as the fundamental for software development and digital innovation. Cambodia Academy Digital Technology (CADT) is a national flagship research and education institution for Digital Technology and Innovation, nurturing digital talent and innovators to drive Cambodia toward a digital society. All CADT students, not only Computer Science majors, learn how to code programming language to enhance their problem-solving and logical thinking capabilities and enable them to transform design concepts into functional solutions.

During practical sessions, students normally encounter challenges such as difficulties in understanding syntax, debugging errors, or conceptualizing algorithms, and these struggles are part of the learning process. Some students always call for help from their lecturers or from their friends to fix bugs, while some others do not dare to ask for help.

Our objective is to figure out the behavior of students during coding based on the activities log that we collected through our VS-Code plugin. We seek insights into their coding practices and engagement during programming activities. The data gathered will contribute to a comprehensive understanding of student behavior in the coding environment and help lecturer assist student in time.

Goals include:

1. Literature review on topics related to student behaviors during coding and select features to use for analysis based on meta-data and snap code.
2. Collect and clean the data
3. Visualize the data
4. Analyze the data
5. Get insights and suggestions
6. Create a machine learning model to predict the student need assistance

## 2. Candidate Profile

The candidate should be a bachelor (3rd or 4th year) student or equivalent (engineering school) in applied mathematics, computer science with an interest in data science applications.

Required skills are statistics, knowledge in machine learning and natural language processing and python programming language. The candidate should also have effective communication skills.

The application file should contain:

- Cover Letter
- CV

## 3. Applications

Applications are to be addressed to CHHUON Sopheakmanith – manith.chhuon@cadt.edu.kh