LEARNING ANALYTICS–

**Learning analytics** is the measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environments in which it occurs. The broader term "[Analytics](https://en.wikipedia.org/wiki/Analytics)" has been defined as the science of examining data to draw conclusions and, when used in [decision making](https://en.wikipedia.org/wiki/Decision-making), to present paths or courses of action. From this perspective, Learning Analytics has been defined as a particular case of [Analytics](https://en.wikipedia.org/wiki/Analytics), in which [decision making](https://en.wikipedia.org/wiki/Decision-making) aims to improve learning and education.

**Learning analytics project overview:**

* In this project, we are analyzing the students level of understanding and performance by taking quiz.
* Quiz would be based on the multiple choice questions and students have to choose one answer. Questions will randomly generate from the dataset in every quiz and they will be from different passages and different topics.
* For the quiz, teachers will use simplicity or we can say as level of the quiz based on the level of understanding of different students.

**Responses can given by two modules:**

***A). Student can do following:-***

1). When student give correct answers , model will show ‘correct’.

2). When student give incorrect answers, models will show ‘incorrect’ and give the correct answer there.

3). Student can also skip the question if he doesn’t know the answer.

4). Negative marking is also applied. So, Score board also counts on the basis of negative marking.

***B).Teachers can do following:***

1).Number of question in the exam.

2).Marks per question.

3).Negative marking.

4).Simplicity level (as implemented in GRE).

**Features:**

* Self-regulated learning
* learning opportunities
* self-assessments
* recommendations
* comparison to peers

**Advantages:**

* learning analytics can help students see and reflect on their behavior in constructive ways to help them manage their progress toward their learning goals.
* faculty can better [monitor students](https://edservices.wiley.com/tips-designing-moderating-large-online-courses/) and understand how course resources are being used.
* Analytics will allow instructors to reflect on their own performance and seek better evidence for guiding instructional improvement.

**Disadvantages:**

* Ethical issues are associated with the use of educational data for LA. That implies how personal data is collected and stored as well as how it is analysed and presented to different stakeholders.
* Security: The stored records of students in databases that belong to Learning Analytics applications represent the heart of their private information. Thus, maintaining database configuration is not always considered by organizations. As a result, breaches of confidential information are possible to happen.
* Storage: A single course can attract thousands of students. Storing big data could be costly, overloaded, and complex as well as hard to manage.

**Application:**

* Predicting learner performance and modeling learners.
* Suggesting relevant learning resources.
* Increasing reflection and awareness.
* Enhancing social learning environments.
* Detecting undesirable learner behaviors
* Detecting affects of learners.
* Departments/programs can monitor the performance of students regarding retention and achievement in a discipline.

**Hardware Requirement:**

* i3 Processor Based Computer or higher
* Memory: 1 GB
* Hard Drive: 50 GB
* Monitor
* Internet Connection

**Software Requirement:**

* Windows 7 or higher
* Google Chrome Browser