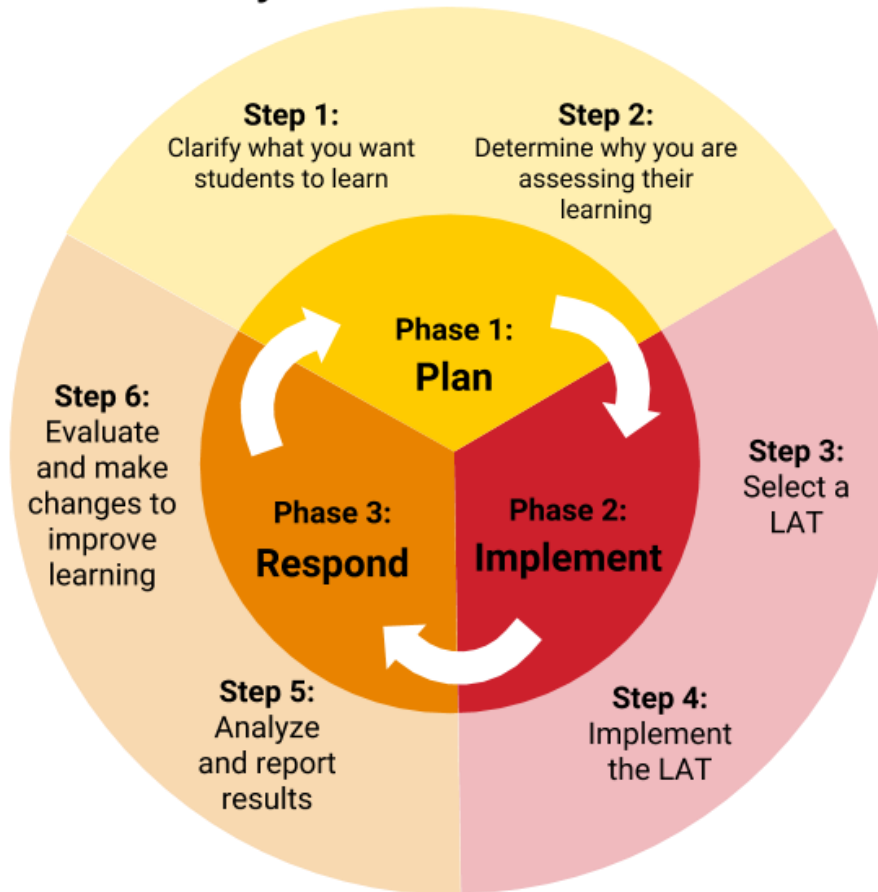


The Learning Assessment Techniques (LAT) Cycle includes three phases: (1) identifying and communicating clear learning outcomes; (2) helping students achieve these outcomes through active, engaged learning, and (3) analyzing, reporting, and reflecting upon results toward improvement.

The LAT Cycle



Examples of Learning Assessment Techniques (LATs)

The following table outlines examples of LATs by increasing preparation, implementation, and analysis difficulty, ranging from low difficulty (**green**), to medium difficulty (**yellow**), to high difficulty (**red**).

Low Difficulty

LAT	Summative (S) or Formative (F)	Appropriate Bloom's Level	Purpose	How to do it	Complexity involved in Preparation (P), Implementation (I), and Analysis (A)
Analytic Memo	S	Applying Analyzing Evaluating	Assesses students' ability to analyze assigned problems by using discipline-specific approaches, methods, and techniques.	Students write a one- or two-page report to a stakeholder who needs to students' analysis to inform decision making.	P = Low I = Low Analysis = Moderate
Approximate Analogies	S	All levels	Assesses whether students understand the relationship between two concepts or terms given.	Students complete the second half of an analogy – A is to B as X is to Y – instructor supplies the first half (A is to B).	P = Moderate I = Low A = Low
Background Knowledge Probe	F	Remembering Understanding	Assesses information on students' prior learning.	Short, simple questionnaires for instructor use at the beginning of a course, new unit or lesson, or prior to introducing an important new topic. May require students to write short answers, circle correct responses to multiple-choice questions, or both.	P = Moderate I = Low A = Low
Categorizing Grid	S or F	Understanding Applying Analyzing	Assesses how, whether, and how well students understand "what goes with what"; gives learners the opportunity to rethink and revise their categorizing rules.	Students receive a grid containing two or three important categories, along with a scrambled list of subordinate terms, images, equations, or other items that belong in one of the categories.	P = Moderate I = Low A = Low
Clickers	S	Remembering Understanding	Assesses how well students recall and/or understand information, often with little time to prepare the answer.	Student or Personal Response Systems. Students respond electronically (pressing a clicker button) to questions posed by instructor.	P = Moderate I = Low A = Low

LAT	Summative (S) or Formative (F)	Appropriate Bloom's Level	Purpose	How to do it	Complexity involved in Preparation (P), Implementation (I), and Analysis (A)
Comprehensive Factors List	S	Remembering	Assesses how well students recall facts and relate it to an unencountered topic.	Students recall and list as many relevant factors as they can relate to a topic they have encountered through a reading assignment, lecture, illustration, or course experience.	P = Low I = Low A = Low
Concept Maps	S or F	All Levels	Assess students' conceptual schemata – patterns of associations made in relation to a given focal concept.	Students draw or diagram a concept given by the instructor and other related concepts they have learned.	P = Low I = Low A = Moderate
Daily Journal	F	Remembering Understanding	Assess how well students recall and/or understand course content by identifying potential gaps in learning or misconceptions.	Reflection exercise in which students use their own words to express reactions to the topic at hand. Reflections can also be recorded or drawn.	P = Low I = Low A = Moderate
Directed Paraphrasing	S	Understanding Applying Analyzing	Assesses students' ability to summarize and restate important information in their own words.	Students translate highly specialized information into language that non-experts in the field will understand.	P = Low I = Low A = Moderate
Documented Problem Solution	S	All Levels	Assess how students solve problems and how well they understand and describe their problem-solving methods.	Students keep track of the steps they take in solving a problem, they "show and tell" how they worked it out.	P = Low I = Low A = Moderate
Empty Outlines (also called Guided Reading Notes)	F or S	Remembering	Assesses how well students grasp important points of a lecture, reading, or presentation.	Instructor provides students with an empty or partially completed outline and students fill in the blank spaces.	P = Low I = Low A = Low
Entry and Exit Tickets	F or S	Remembering Understanding	Assess knowledge and understanding of core facts, terms, concepts, and ideas.	Students reflect on a reading assignment, video, lecture, or other then write a brief response to a question on an index card.	P = Low I = Low A = Moderate

LAT	Summative (S) or Formative (F)	Appropriate Bloom's Level	Purpose	How to do it	Complexity involved in Preparation (P), Implementation (I), and Analysis (A)
Insights-Resources-Application (IRA)	S	All levels	Assesses students' ability to reflect upon and identify what they have learned, apply what they have learned to personal experience, and search out additional sources to deepen their knowledge and understanding on the topic.	In conjunction with an assigned reading, students complete a written assignment that includes: <ol style="list-style-type: none"> 1. New perceptions or understandings (Insights) 2. Resources they found to amplify the reading's themes or information (Resources) 3. An example from the students' personal experience that relates to the reading (Application) 	P = Moderate I = Low A = Low
Learning Goal Listing	F	Remembering Understanding	Assesses students' ability to distinguish important from unimportant, and students' ability to prioritize.	Students generate and prioritize a list of their learning goals at the beginning of the academic term, a unit of study, or a specific learning activity.	P = Low I = Low A = Low
Memory Matrix	S	Remembering	Assesses students' recall of important content and skill at organizing that information into categories.	Two-dimensional diagram, a rectangle divided into rows and columns used to organize information and illustrate relationships. Row and column headings are given, but cells are left empty.	P = Low I = Low A = Low
One-sentence Summary	S or F	All levels	Assesses students' ability to concisely, completely, and creatively students can summarize a large amount of information on a given topic into one single sentence.	Students write a one-sentence summary on a given topic, article, book, etc.	P = Low I = Low A = Moderate
Pro and Con Grid	F or S	Remembering Understanding Applying Analyzing	Assesses students' critical thinking skills.	Students analyze pros/cons, costs/benefits, or advantages/disadvantages of an issue of mutual concern.	P = Low I = Low A = Low

LAT	Summative (S) or Formative (F)	Appropriate Bloom's Level	Purpose	How to do it	Complexity involved in Preparation (P), Implementation (I), and Analysis (A)
Problem Recognition Task	S	Remembering Understanding Applying Analyzing	Assesses how well students can recognize common problem types.	Students recognize and identify a particular type of problem each example represents and match a problem to a solution method.	P = Low I = Low A = Low
Quick Write	S or F	Remembering Understanding	Assesses students' content knowledge, can be used as a diagnostic assessment.	Students write a response in a brief amount of time to an open-ended prompt posed by the teacher.	P = Low I = Low A = Moderate
Sequence Chain	F or S	Remembering Understanding Applying Analyzing Creating	Assesses students' ability to organize information to emphasize continuity or connections.	Students create a visual map of the logic within a series by analyzing and depicting graphically a sequence of events, actions, roles, or decisions.	P = Low I = Low A = Low
Snap Shots	F	Remembering Understanding	Assesses students' foundational knowledge.	Instructor presents questions during class with several possible answers. Individual students choose which answer they think is correct, and the instructor makes a visual assessment of class results. Students then discuss answers with neighbor(s), upon which they choose an answer again together. The instructor makes another assessment and compares the results.	P = Low I = Low A = Low

Medium Difficulty

LAT	Summative (S) or Formative (F)	Appropriate Bloom's Level	Purpose	How to do it	Complexity involved in Preparation (P), Implementation (I), and Analysis (A)
Application Cards	F or S	Applying Evaluating Creating	Assess how well students are able to apply learned concepts to the real world.	Students write down at least one possible real-world application for a learned concept on an index card.	P = Low I = Moderate A = Moderate
Best Summary	F or S	Applying Evaluating Creating	Assesses students' ability to recognize that some information is better than other, even if all information is factually correct.	Students individually prepare summaries of the main points at the end of a given unit of content, lecture, reading assignment, or other. Then students work in groups to compare, evaluate, and select the "best" summary.	P = Low I = Moderate A = Moderate
Capstone Project or Experience	S	All levels	Is a multifaceted assignment that serves as a culminating academic and intellectual experience for students, typically at the end of an academic program.	Students demonstrate proficiency in a culminating academic and intellectual experience, typically at the end of an academic program.	P = Moderate I = Moderate A = High
Case Study	S	All levels	Assesses students' ability to think critically and problem-solve using content-related information.	Students receive a real life scenario, or "case" related to course content. These cases usually present background on how the case developed, and a dilemma/problem. Students are charged with developing a solution to the dilemma/problem.	P = Moderate I = Moderate A = High
Consider This	F or S	All levels	Assesses students' ability to move beyond surface-level thinking, as they have to relate prior knowledge to a new situation, look for meaning, and search for a solution to a problem.	Students are given a theory or concept they have been taught and are challenged to figure out a way to apply it in a new and different context.	P = Low I = Low-Moderate A = High

LAT	Summative (S) or Formative (F)	Appropriate Bloom's Level	Purpose	How to do it	Complexity involved in Preparation (P), Implementation (I), and Analysis (A)
Contemporary Issues Journal	F or S	All levels	Assesses how well students can connect course content to the outside world or their personal lives.	Students look for recent events or developments in the real world that are related to their course content, then analyze them to identify the connections between the two in a journal.	P = Low I = Low-Moderate A = High
Debate	F or S	All levels	Assesses and promotes research skills, critical thinking, and communication proficiency.	Students research and analyze a controversial topic, then engage in oral presentations of their arguments against an opposing team.	P = Low I = High A = Moderate
Defining Features Matrix	S or F	Understanding Applying Analyzing	Assesses students' skills at categorizing important information according to a given set of critical defining features.	Students categorize concepts according to the presence (+) or absence (-) of defining features.	P = Moderate I = Low A = Moderate
Digital Projects	S or F	All levels	Assess students' ability to relate and express course content through alternative routes.	Students create projects that enhance and document their learning of a topic, and can include collages, photo albums, videos, infographics, web sites, blogs, podcasts, or other.	P = Low I = Low A = High
Digital Story	S or F	All levels	Assess students' ability to relate and express course content through own avenues.	Digital storytelling is the practice of using computer-based tools, such as video, audio, graphics, and web publishing, to tell personal or academic stories by sharing relevant life experiences to connect to an audience about a content-specific issue.	P = Low I = Low A = High
Dramatic Dialogue	S or F	All levels	Assesses students' ability to synthesize and draw upon their knowledge and understanding in order to generate new ideas and comments that result in a convincing dialogue, while challenging them to explore both sides of an issue.	Students create a dialogue based on an imagined discussion of a problem or issue between two characters, imaginary or real, past or present.	P = Low I = Low-Moderate A = High

LAT	Summative (S) or Formative (F)	Appropriate Bloom's Level	Purpose	How to do it	Complexity involved in Preparation (P), Implementation (I), and Analysis (A)
E-Portfolios	S	All levels	(see Portfolios)	Digitized collections of student work including multimedia artifacts, reflective commentary, and evidence.	P = Low I = Low A = High
Fact or Opinion	F or S	Understanding Analyzing	Assesses students' ability to understand content encountered in a text and discern between fact and opinion.	Students first read a text to identify and list facts. Then they re-read the text to identify where the author overtly or covertly inserts opinion and make a new list as they carefully consider the evidence.	P = Moderate I = Low-Moderate A = Low
Free Discussions	F	Remembering Understanding Applying	Assesses students' ability to participate effectively and communicate with others.	Students form small groups quickly and extemporaneously to respond to course-related questions, informally discussing ideas.	P = Moderate I = Moderate A = Moderate
Knowledge Grid	F or S	Remembering Understanding Analyzing	Assesses students' analytical and organizational skills.	Students fill in the internal cells of a grid in which the first column and top row provide key categories.	P = Moderate I = Low A = Low
Minute Paper	F or S	Remembering Understanding	Assesses students' basic recall and/or understanding of a specific topic.	Students are asked to give written feedback to a specific question.	P = Low I = Low A = Moderate
Misconception/Preconception Check	F	Remembering Understanding	Assesses students' prior knowledge and knowledge that may hinder or block further learning, such as incorrect or incomplete knowledge, values, or attitudes.	May require students to write short answers, circle correct responses to multiple-choice questions, or both.	P = Low I = Low A = Moderate
Muddiest Point	F	Remembering Understanding	Assesses students' ability to identify what is least clear or most confusing about a lesson or topic.	Students write down their reaction to the question "What is the muddiest point in ____?".	P = Low I = Low A = Moderate
Multiple-Task Mastery Checklist	F	All levels	Assesses students' ability to complete the steps of an assignment. Can range from simple to high level.	Instructor checks off that students complete each step in a sequence of structured project activities.	P = Moderate I = Low A = Moderate

LAT	Summative (S) or Formative (F)	Appropriate Bloom's Level	Purpose	How to do it	Complexity involved in Preparation (P), Implementation (I), and Analysis (A)
Nominations	S	Remembering Understanding Applying Analyzing	Assess students' research skills, what they value from an intellectual and humanistic perspective.	Students learn about an important award in their field of study, then research outstanding individuals in the field, select one for nomination, and write a short profile page of the individual indicating why she or he should be considered for the award.	P = Low I = Low-Moderate A = High
Objective test items	S	Remembering Understanding	Assess students' content knowledge at various levels.	Students are given exams or quizzes consisting of fill-in-the-blank, matching, labeling, true/false, or multiple-choice questions.	P = Moderate-High I = Low A = Low
Open-ended Essay	S or F	All levels	Assesses students' ability to use content knowledge and apply it within an essay, as well as written communication skills.	Students write an open-ended essay on a given topic.	P = Low I = Low A = High
Open-Ended Questions	F	All levels	Assess students' knowledge and understanding on a given topic. Can range from simple to high level.	Instructor asks students open-ended (not yes/no) questions about covered topics. Students can also ask one another.	P = Low I = Low A = Moderate-High
Oral exams	S or F	All levels	Assess students' knowledge and understanding on a given topic, as well as oral communication skills. Can range from simple to high level.	Students are asked focused closed or open-ended questions.	P = Moderate I = Moderate A = Moderate-High
Paper or Project Prospectus	S or F	All levels	Assesses students' skill at synthesizing what they learned about a topic and their understanding of that topic.	Students create a brief, structured draft plan for a term paper or project including a topic, purpose, intended audience, major questions to be answered, basic organization, and time and resources required focusing on tasks to be accomplished, skills to be improved, or products to be developed.	P = Moderate I = Low A = High
Portfolio (also see E-Portfolio)	S or F	All levels	Assesses longitudinal student learning as related to course goals/outcomes.	Students select samples of their own work and provide a commentary to the sample chosen, then create a cohesive collection of pieces related to a topic.	P = Low I = Low A = High

LAT	Summative (S) or Formative (F)	Appropriate Bloom's Level	Purpose	How to do it	Complexity involved in Preparation (P), Implementation (I), and Analysis (A)
Prediction Guide	F	Remembering Understanding Applying	Assesses students' prior knowledge and critical thinking skills, as well as connecting existing ideas to new concepts. Can identify misconceptions.	Students are presented with a series of questions that ask them to make predictions prior to a learning activity. Then, after the learning activity, they revisit their predictions to evaluate accuracy and correct potential misconceptions.	P = Moderate I = Moderate A = Low
Quick-Draw	F	Understanding Applying Creating	Assesses content knowledge, can range from simple to complex.	Two students compete by drawing a sketch of a concept.	P = Low I = Moderate A = Moderate
Quotation Commentary	S or F	Understanding Applying Creating	Assesses students' ability to use quoted material by interpreting, paraphrasing, synthesizing, and citing excerpts from assigned readings.	Students receive a handout with a set of quotations from a recent reading assignment and then comment on them by paraphrasing, interpreting, and commenting.	P = Moderate I = Low A = Moderate
Self-Grading	F	Remembering Understanding Applying Analyzing	Assesses students' ability to discern between varying qualities of work.	Students can use the provided rubric to grade their own work. They must include a justification of their scoring.	P = Moderate I = Low A = Moderate
Stand Where You Stand	F or S	Remembering Understanding Applying Analyzing	Assesses students' ability to think critically, practice developing and presenting arguments, and choose a position after listening to different points of view.	Students read assignments with opposing opinions on a controversial issue, upon which they decide whether they agree or disagree. Then they stand in corners of the room labeled strongly agree, strongly disagree, and disagree, taking turns presenting their rationales for their stance. Finally, they have the option to move to a different corner if the presented information persuaded them to change their stance.	P = Moderate I = Moderate A = Low

LAT	Summative (S) or Formative (F)	Appropriate Bloom's Level	Purpose	How to do it	Complexity involved in Preparation (P), Implementation (I), and Analysis (A)
Student-generated Rubric	F	Remembering Understanding Applying	Assesses students' ability to identify features of excellent work, self-assess their own work, while motivating them to meet the standards of the rubric.	Students design a rubric to grade a discipline-specific product (e.g. a lab report) with the guidance of the instructor.	P = Moderate I = Moderate A = Moderate
Three-Minute Message	S or F	Remembering Understanding Applying	Assesses students' ability to orally communicate the most essential part of their message and then deliver their information in a clear and concise way to an audience.	Students have three minutes to present a compelling argument and to support it with convincing details and examples.	P = Low I = High A = Moderate
What's the Problem?	S or F	All levels	Assesses students' ability to generalize problem types instead of seeing problems as isolated exemplars, their efficiency and effectiveness in problem solving, and their critical and decision making skills.	Students look at examples of common problem types and seek to name the particular type of problem each example represents.	P = Moderate-High I = Moderate A = Low

High Difficulty

LAT	Summative (S) or Formative (F)	Appropriate Bloom's Level	Purpose	How to do it	Complexity involved in Preparation (P), Implementation (I), and Analysis (A)
Dyadic Essay	S	All levels	Assesses students' ability to apply information and development of higher order thinking skills.	Students individually write an essay question and model answer on a topic. Pairs exchange questions, write responses to each other's questions, then compare the model with their own. Next, they discuss their responses and in a final step, complete a peer evaluation of each other's work.	P = Moderate I = Moderate A = High
Editorial Review	S	All levels	Assesses students' knowledge of standards of excellence in the field, their ability to evaluate works based on these standards, their ability to discriminate between works to identify which are better than others, and their ability to communicate with understanding and integrity while realizing their opinions will directly affect others.	Students assume roles as editors who must evaluate a set of works to select which ones to include in an upcoming publication, and then write to the authors with a decision and rationale about whether their work merits inclusion in the publication.	P = Moderate I = Moderate A = High
Ethical Dilemma	S	All levels	Assesses students' ability to evaluate situations they encounter in the real world.	Students are presented with an ethics-based, discipline-related scenario in which they must choose a course of action between two or more difficult alternatives. Students write an essay response presenting the case for their choice of the most ethical decision.	P = High I = Low-Moderate A = High

LAT	Summative (S) or Formative (F)	Appropriate Bloom's Level	Purpose	How to do it	Complexity involved in Preparation (P), Implementation (I), and Analysis (A)
First-day final (also referred to as pre- test)	F	All levels	Assesses students' prior knowledge to identify strengths and weaknesses in content knowledge and understanding. It can be used to compare students' progress during the actual graded final.	Assess prior knowledge and learning gains over time. Students take a non-graded test on the first day of the term that consist of questions similar to the Final Exam, and then identify the questions they found easiest and those they found most difficult. At the end of the term, they take the real, graded Final Exam and the results are used as a reference point. Note: for pre/post assessments, the administered pre-test is identical to the post-test.	P = High I = High A = Moderate
Invent the Quiz	F or S	All levels	Assesses students' understanding of course content, and potentially identifies misconceptions or gaps.	Students write a small number of test questions related to a recent learning module and create an answer sheet, and/or scoring rubric.	P = Low I = Moderate A = Moderate
Issue Awareness Ad	S or F	All levels	Assesses students' research and communication skills, along with their understanding of related course content.	Students identify and analyze a problematic course-related issue, then write and deliver a speech that persuades others of the urgency of the issue and offers strategies to solve the problem.	P = Low I = Low-Moderate A = High
Peer Problem Review	S or F	All levels	Assesses students' higher order thinking skills and problem-solving skills, along with their communication skills (oral and/or written).	Students each receive a problem, try to solve it, and then pass the problem and solution to a nearby student. The student receiving the problem and response then analyzes and evaluates the solution.	P = Moderate I = Moderate A = High
Peer Teaching	F	All levels	Assesses students' knowledge and understanding of content, as well or oral communication skills.	Students teach an assigned or chosen topic to their peers, peers fill out a peer evaluation rubric (can be blind). Can occur in small groups or whole class. Also encourages oral communication.	P = Moderate I = Moderate A = High

LAT	Summative (S) or Formative (F)	Appropriate Bloom's Level	Purpose	How to do it	Complexity involved in Preparation (P), Implementation (I), and Analysis (A)
Role Play	S	All levels	Assesses students' ability to apply knowledge, skills, and understanding to successfully speak and act from a different, assigned perspective.	Students deliberately act out characters or identities after researching their roles or being assigned source material for the role play.	P = Moderate I = Moderate-High A = High
Synthesis Paper	S	All levels	Assesses students' ability to move from simple summary to a complex representation of issues and ideas from a variety of course readings; think critically; and understand connections between different issues/topics/ideas.	Students consider several reading assignments together, work to draw commonalities, then write about the readings in a formal paper.	P = Moderate I = High A = High
Team Test	S	Remembering Understanding Applying	Assesses students' understanding of foundational knowledge and their ability to translate key ideas from subject areas into their own words.	Students work in teams to prepare for an instructor-created exam. Then, they take the exam first individually, and next as a group.	P = High I = High A = Moderate
Team Games Tournament	S	Remembering Understanding Applying	Assesses students' foundational knowledge and their ability to recognize the difference between fact and opinion.	Home teams work together to learn content and then compete against tournament teams.	P = High I = High A = High
Think-Aloud Problem-Solving Protocol	F	All levels	Assesses students' ability to work cooperatively and think critically about subject matter content while emphasizing problem-solving and the recognizing errors in logic.	Students receive a set of problems to solve, along with specific roles of problem solver and listener. The problem solver thinks aloud and talks through the steps of solving the problem. The listener listens, follows the steps, attempting to understand the reasoning behind the steps, and recording the problem-solving process as s/he hears it. The pair then alternate roles.	P = Moderate-High I = Moderate A = High
Triple Jump	S or F	All levels	Assesses students' ability to solve real-world problems by thinking critically and working	Students think through a real-world problem in a case-based scenario by:	P = High I = High A = High

			through the problem-solving process – from the initial problem-solving planning, the record of resources consulted, to the final analysis and solution.	<ol style="list-style-type: none">1. articulating a plan for solving it2. gathering resources attempting to provide a viable solution	
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