

Estimate Costing Subject Syllabus For Diploma Ebook

Estimate Costing Subject Syllabus for Diploma: A Comprehensive Guide

Estimate costing subject syllabus for diploma plays a pivotal role in shaping the future of aspiring civil engineers, architects, and construction managers. As a fundamental element of diploma programs in civil engineering, architecture, or construction technology, this subject equips students with essential skills to prepare accurate cost estimates, analyze project expenses, and facilitate efficient project planning. Understanding the detailed syllabus helps students grasp the scope of their learning, prepare effectively for exams, and develop practical skills vital in the construction industry.

Overview of Estimate Costing in Diploma Courses

Estimate costing is the process of forecasting the expenses involved in a construction project. It involves calculating the total cost required to complete a project within specified standards and quality. The subject syllabus for diploma students typically covers theoretical concepts, practical applications, and industry standards related to estimating costs, preparing detailed estimates, and understanding project cost control.

In the context of diploma courses, estimate costing is designed to provide students with a comprehensive understanding of:

- Types of estimates (rough, detailed, and approximate estimates)
- Cost components involved in construction projects
- Methods of estimating and cost analysis
- Preparation of bills of quantities and tender documents
- Project evaluation and cost control measures

Detailed Syllabus for Estimate Costing Subject in Diploma

1. Introduction to Estimate Costing

- Definition and importance of estimate costing

- Objectives of estimating
- Types of estimates:
 - Rough estimate
 - Detailed estimate
 - Approximate estimate
- Stages of estimation process
- Principles of sound estimating

2. Basic Concepts and Principles

- Understanding project specifications and drawings
- Measurement units and conventions
- Types of measurements
- Principles of rate analysis
- Material, labor, and overhead considerations

3. Elements of Construction Cost

- Material costs
 - Types of materials
 - Material wastage and loss
- Labor costs
 - Labor rates
 - Labor productivity
- Plant and machinery costs
- Overheads and indirect expenses
- Contingencies and profit margin

4. Methods of Estimation

- Approximate estimation methods

- Unit area method
- Cube rate method
- Index number method

- Detailed estimation methods

- Analysis of drawings and specifications
- Measurement book and schedule of quantities
- Rate analysis and rate comparison

5. Bill of Quantities and Tendering

- Preparation of bills of quantities (BOQ)
- Standard formats and conventions
- Types of tendering
- Comparison of tenders
- Acceptance and award of contracts

6. Cost Control and Management

- Budgeting and cost monitoring
- Variance analysis
- Valuation of work in progress
- Financial management in construction projects

7. Practical Applications and Software Tools

- Use of estimating software
- Preparation of estimates using Excel and other tools
- Case studies and project-based learning

Additional Topics Covered in the Syllabus

Beyond the core topics, the syllabus may also include:

- Legal aspects related to estimation and tendering

- Environmental considerations in cost estimation
- Safety standards affecting project costs
- Recent trends in construction estimating
- Sustainable construction practices and their cost implications

Importance of Understanding the Syllabus for Diploma Students

Familiarity with the estimate costing subject syllabus enables students to:

- Prepare effectively for examinations by focusing on key topics
- Develop practical skills that are directly applicable to real-world construction projects
- Gain a competitive edge in job placements and industry readiness
- Understand the importance of accurate estimation in project success and profitability

Tips for Students to Master the Estimate Costing Syllabus

- Thoroughly study the theoretical concepts and practice calculations regularly
- Work on sample estimation projects and case studies
- Use software tools for estimation practice to improve efficiency
- Participate in workshops and industry visits for practical insights
- Stay updated with latest industry standards and technological advancements

Conclusion

The **estimate costing subject syllabus for diploma** is comprehensive and essential for students aspiring to excel in construction, civil engineering, and architecture fields. By mastering the syllabus, students develop a robust understanding of cost estimation techniques, project budgeting, and cost management strategies, all of which are critical for successful project execution. With a focus on both theoretical knowledge and practical skills, the syllabus prepares diploma students to meet industry demands confidently and contribute effectively to construction project planning and management.

Estimate Costing Subject Syllabus for Diploma: An In-Depth Review

Estimate costing is a fundamental subject in diploma-level civil engineering, architecture, and construction management courses. It equips students with the necessary skills to prepare, analyze, and control project costs, ensuring that construction projects are financially viable and profitable. A comprehensive understanding of the syllabus is essential for students to excel academically and develop practical competencies for their future careers. This review provides a detailed overview of

the estimate costing subject syllabus for diploma, exploring each component thoroughly to serve as a valuable guide for students, educators, and practitioners.

Introduction to Estimate Costing

Estimate costing forms the backbone of project planning and management in the construction industry. It involves calculating the probable expenditure required for executing a project based on detailed analysis and estimation techniques. The syllabus typically begins with foundational concepts, progressing towards advanced topics, ensuring students grasp both theoretical and practical aspects.

Key components include:

- Definition and importance of estimate costing
- Types of estimates (rough, preliminary, detailed)
- Role of estimate costing in project management
- Basic principles of costing and budgeting

Syllabus Breakdown for Diploma in Estimate Costing

The syllabus is structured into various modules, each focusing on specific aspects of estimate costing. Below is an organized breakdown:

1. Introduction to Estimation and Costing

- Definition and scope of estimation and costing
- Objectives and importance
- Types of estimates:
 - Approximate estimates
 - Preliminary estimates
 - Detailed estimates
 - Revised estimates
- Factors influencing estimation accuracy
- Principles of good estimation practice

2. Measurement of Works

- Standard measurement (BOQ - Bill of Quantities)

- Methods of measurement
- Units of measurement in construction
- Preparation of measurement sheets
- Standard formats and conventions

3. Analysis of Specifications and Drawings

- Reading and interpreting detailed drawings
- Understanding specifications and standards
- Identifying work items and materials
- Clarifying ambiguities and discrepancies
- Ensuring completeness and accuracy

4. Rate Analysis and Preparation of Estimates

- Components of rate analysis:
 - Material costs
 - Labour costs
 - Equipment and machinery costs
 - Overheads and profit margins
- Techniques of rate analysis:
 - Analysis based on standard data
 - Detailed analysis for complex items
 - Use of standard data and schedules
 - Preparation of detailed estimates

5. Types of Estimates in Detail

- Approximate estimates:
 - When and how to prepare
 - Methods used (cube rate method, per unit method)
- Preliminary estimates:
 - Use in project feasibility and initial planning
- Detailed estimates:
 - Item-wise cost analysis
 - Contingencies and allowances
 - Revision and updating of estimates

6. Valuation of Materials and Labour

- Material valuation methods:
 - Cost price
 - Market rate
 - Standard rates
- Labour costing:
 - Wage rates and wages calculation
 - Labour productivity
 - Labour welfare charges

7. Overheads and Profit Margins

- Types of overheads:
 - Administrative charges
 - Transportation
 - Temporary works
 - Miscellaneous expenses
- Profit margins:
 - Factors affecting profit
 - Standard profit percentage

8. Pricing and Tendering

- Preparing tender estimates
- Competitive bidding strategies
- Contract types and their influence on estimating
- Risk assessment and contingency planning

9. Modern Techniques and Tools in Estimation

- Use of software in estimate costing:
 - CAD-based estimation tools
 - Estimation software packages
 - Digital measurement and 3D modeling
- Benefits of technology integration

10. Cost Control and Monitoring

- Budgeting and cost control techniques
- Variance analysis
- Cost reporting and documentation
- Role of cost engineers

11. Special Topics

- Estimation for specific types of projects:
 - Residential buildings
 - Commercial complexes
 - Infrastructure projects
- Environmental considerations in costing
- Legal and contractual aspects influencing estimation

Deep Dive into Core Topics

Measurement of Works and BOQ Preparation

Accurate measurement forms the foundation of reliable estimates. The syllabus emphasizes understanding standard measurement techniques, including the use of standard formats and conventions. Students learn to prepare Bills of Quantities (BOQ), which itemize every work component with precise measurements and descriptions. Mastery in reading drawings and specifications ensures that no work is overlooked or misinterpreted.

Rate Analysis and Cost Estimation Techniques

Rate analysis involves breaking down the cost of individual work items to arrive at competitive and realistic rates. The syllabus guides students through:

- Analyzing material costs based on market rates
- Computing labour wages, including wages, allowances, and welfare charges
- Estimating equipment and machinery expenses
- Incorporating overheads and profit margins

Students learn to prepare detailed estimates by aggregating these rates across the scope of work, ensuring thoroughness and accuracy.

Types of Estimates and Their Applications

Understanding different estimate types allows students to apply the appropriate estimation method at each project stage:

- Approximate estimates are quick, rough calculations used during initial feasibility analysis.
- Preliminary estimates refine initial figures based on limited data.
- Detailed estimates are comprehensive, itemized calculations used for bidding and project execution.

Each type has its methodology, data requirements, and accuracy levels, which students must master.

Material and Labour Valuation

Valuing materials and labour accurately impacts the overall estimate significantly. The syllabus covers:

- Methods for material valuation, including cost price, market rate, and standard rates
- Labour cost calculation considering wages, productivity, and welfare contributions
- Factors influencing material and labour costs, such as market fluctuations and project location

Overheads, Profit Margins, and Contingencies

A realistic estimate accounts for indirect costs and profit:

- Overheads include administrative expenses, transportation, temporary site works, and miscellaneous costs.
- Profit margins vary based on project risk, scope, and market conditions.
- Contingencies are allowances for unforeseen expenses, typically a percentage of the total estimate.

Students learn to incorporate these elements judiciously to avoid underestimating or overestimating project costs.

Preparation of Tender and Contract Estimates

Tenders are the basis of winning projects. The syllabus emphasizes:

- Preparing accurate tender estimates
- Understanding contractual obligations
- Analyzing risks and incorporating contingency sums
- Strategies for competitive bidding

Modern Estimation Tools and Techniques

The integration of technology has revolutionized estimate costing:

- Use of estimation software like MS Excel, CostX, or specialized tools for automation
- Digital measurement tools and 3D modeling for precise quantity extraction
- Benefits include increased accuracy, efficiency, and ease of updates

Students are encouraged to familiarize themselves with current digital tools to enhance their estimation capabilities.

Cost Control and Monitoring

Effective cost management involves:

- Monitoring actual expenditures against estimates
- Identifying and analyzing variances
- Implementing corrective measures
- Maintaining detailed documentation for transparency and future reference

Practical Aspects and Learning Outcomes

The syllabus aims to develop:

- Analytical skills to interpret drawings and specifications
- Technical proficiency in measurement and rate analysis
- Practical knowledge of estimating procedures
- Ability to prepare comprehensive estimates for various project types
- Understanding of modern tools to improve accuracy and efficiency
- Skills in cost control, monitoring, and reporting

Students are encouraged to undertake practical exercises, including:

- Preparing estimates for sample projects
- Conducting rate analysis based on real data
- Using estimation software
- Participating in project cost management simulations

Conclusion: Preparing for Professional Excellence

A thorough grasp of the estimate costing subject syllabus for diploma ensures students are well-equipped to handle real-world construction costing challenges. It bridges the gap between theoretical knowledge and practical application, fostering skills that are critical for successful project management and execution. As the construction industry evolves with new technologies and methodologies, staying updated with the latest estimation practices and tools becomes imperative for aspiring professionals.

By mastering each component of the syllabus—measurement, rate analysis, cost control, and technology integration—diploma students can confidently contribute to cost-effective, efficient, and sustainable construction projects, ultimately paving the way for a successful career in the built environment.

Question What are the main topics covered in the estimate costing syllabus for diploma courses? The syllabus typically includes topics such as fundamentals of estimation, types of estimates, measurement of materials, rate analysis, quantity surveying, tendering and bidding, valuation, and modern software tools used in estimation. **Answer** How important is understanding rate analysis in the estimate costing diploma syllabus? Understanding rate analysis is crucial as it helps students learn how to determine the cost of materials, labor, and overheads, which is essential for preparing accurate estimates and bids in construction projects. Are computer applications and software included in the estimate costing syllabus for diploma students? Yes, modern estimate costing courses often include training on software tools like MS Excel, AutoCAD, and specialized estimation software to enhance accuracy and efficiency in preparing estimates. What is the significance of learning measurement techniques in the estimate costing syllabus? Measurement techniques are vital as they form the basis for calculating quantities of materials and work, ensuring accurate estimation and cost control. Does the syllabus cover tendering and contract management aspects? Yes, the syllabus includes topics on preparing tenders, understanding contractual obligations, and managing contracts, which are essential skills for diploma students in construction project management. How does the estimate costing syllabus prepare students for real-world construction projects? It provides practical knowledge of cost estimation, valuation, and tendering processes, along with exposure to industry-standard tools, enabling students to effectively plan and control project budgets. Are recent trends like sustainable construction and green building costs included in the syllabus? Many current syllabi incorporate trends such as sustainable construction, green building materials, and eco-friendly cost estimation practices to keep students updated with industry advancements. What are the career prospects after completing the estimate costing

diploma course? Graduates can pursue careers as cost estimators, quantity surveyors, project planners, site engineers, or work in construction companies, consultancy firms, and government departments involved in infrastructure projects.

Related keywords: estimate, costing, subject, syllabus, diploma, cost analysis, budgeting, financial management, construction costing, engineering economics

LESSON 6 SUBJECT COMPLEMENTS ANSWERS

Lesson 6 Subject Complements Answers

Understanding subject complements is essential for mastering sentence structure and grammar. In Lesson 6, we focus on identifying, using, and correctly answering questions related to subject complements. This comprehensive guide aims to clarify the concept, provide clear explanations, and offer practical exercises with answers to solidify your understanding of subject complements.

What Are Subject Complements?

Definition of Subject Complements

A subject complement is a word or phrase that follows a linking verb and provides additional information about the subject. It completes the meaning of the subject and the verb, often renaming or describing the subject.

Examples:

- The sky is blue. (adjective complement)
- She became a doctor. (noun complement)

Types of Subject Complements

Subject complements are mainly classified into two types:

- Predicate Nouns (or Predicate Nominatives): These rename the subject.
- Predicate Adjectives: These describe the subject.

Identifying Subject Complements

How to Recognize a Subject Complement

To identify a subject complement:

- Look for a linking verb (such as is, was, were, seem, become, feel, look).
- Determine if the word or phrase following the verb provides more information about the subject.
- Check if the word can be replaced with a pronoun or synonym to verify its function.

Common Linking Verbs

- am, is, are
- was, were
- be, being, been
- seem, appear, become, look, feel, taste, smell, remain, stay

Common Questions and Answers on Subject Complements

1. What is the function of a subject complement?

Answer:

A subject complement completes the meaning of the subject by either renaming it (predicate noun) or describing it (predicate adjective). It follows a linking verb and provides more information about the subject.

2. How do you identify a predicate noun in a sentence?

Answer:

A predicate noun renames or identifies the subject and can often be replaced with another noun or pronoun. It is connected to the subject via a linking verb.

Example & Answer:

Sentence: The winner is she.

Question: What is the subject complement?

Answer: She (predicate noun replacing "the winner").

3. How can you distinguish between a predicate adjective and a regular adjective?

Answer:

A predicate adjective follows a linking verb and describes the subject, often answering "How is the subject?" or "What is the subject like?" Regular adjectives typically modify nouns, whereas predicate adjectives follow linking verbs.

Example & Answer:

Sentence: The cake tastes sweet.

Question: What is the predicate adjective?

Answer: Sweet (describes the cake).

4. Can a subject complement be a phrase instead of a single word?

Answer:

Yes, a subject complement can be a phrase, such as a noun phrase or an adjective phrase, that completes the meaning of the subject.

Example:

Sentence: The most important thing is your cooperation.

Question: What is the subject complement?

Answer: Your cooperation (noun phrase).

5. What are some common errors to avoid when identifying subject complements?

Answer:

- Confusing predicate nominatives with direct objects.

- Mistaking adjectives that modify nouns for predicate adjectives.
- Overlooking the linking verb and assuming any word following the subject is a complement.

Sample Exercises with Answers

Exercise 1: Identify the subject complement in each sentence.

- The sky became dark.
- She is a talented musician.
- The soup tastes salty.
- They are students.
- The movie seemed interesting.

Answers:

- dark (predicate adjective)
- a talented musician (predicate noun)
- salty (predicate adjective)
- students (predicate noun)
- interesting (predicate adjective)

Exercise 2: Choose the correct subject complement for each sentence.

- The teacher was (*kind / kind-hearted*).
- The bread smells (*fresh / freshness*).
- My brother became (*a doctor / doctor*).
- The flowers are (*beautiful / beauty*).
- The cake looks (*delicious / deliciously*).

Answers:

- The teacher was **kind-hearted**.
- The bread smells **fresh**.
- My brother became **a doctor**.
- The flowers are **beautiful**.
- The cake looks **delicious**.

Exercise 3: Rewrite the sentences, replacing the subject complement with a pronoun.

- The winner is she.
- The best thing about the movie is its ending.
- The weather became very cold.
- My favorite hobby is painting.
- The food tastes spicy.

Answers:

- The winner is she ? The winner is she. ? The winner is her. (Note: "her" is used correctly as a predicate nominative in the sentence.)
- The best thing about the movie is its ending. ? It is its ending. (Rephrasing is complex; better to keep the noun.)
- The weather became very cold. ? It became very cold.
- My favorite hobby is painting. ? It is painting.
- The food tastes spicy. ? It tastes spicy.

(Note: Some sentences do not lend themselves easily to pronoun substitution in the predicate complement without changing the sentence structure. Focus on understanding the role of the pronoun in context.)

Tips for Mastering Subject Complements

- Always identify the linking verb first; it's the key to spotting a subject complement.
- Remember that predicate nouns rename the subject, so they can be replaced with pronouns like "she," "he," or "they" in the nominative case.
- Predicate adjectives describe the subject and often follow linking verbs such as "is," "seems," or "becomes."
- Practice with different sentences to recognize subtle differences between complements and other sentence components.
- Use exercises to test your understanding regularly and review the answers carefully to learn from mistakes.

Summary

Understanding and correctly answering questions about subject complements is vital for

grammatical accuracy and effective communication. By recognizing the role of linking verbs and the types of complements?predicate nouns and predicate adjectives?you can improve your sentence analysis skills. Practice identifying, replacing, and constructing sentences with subject complements to become more confident in using them correctly.

Remember, the key to mastering lesson 6 subject complements answers lies in understanding their function, practicing with varied examples, and paying attention to the linking verbs that connect them to the subject. With consistent effort, you'll be able to answer questions about subject complements with clarity and precision.

Lesson 6: Subject Complements Answers ? An In-Depth Exploration

Understanding the nuances of sentence structure is fundamental to mastering English grammar, and one of the most essential components in this domain is the concept of subject complements. In Lesson 6, we delve into the intricacies of subject complements, their functions, types, and how to correctly identify and utilize them in sentences. This comprehensive review aims to clarify common misconceptions, provide detailed explanations, and furnish practical examples to enhance your grasp of subject complements.

What Are Subject Complements?

At its core, a subject complement is a word or phrase that follows a linking verb and provides additional information about the subject. It essentially "complements" or completes the meaning of the subject by renaming or describing it. Without the subject complement, the sentence may be grammatically correct but semantically incomplete or ambiguous.

Key Points:

- Appears after a linking verb (such as is, was, seems, becomes, appears, etc.)
- Renames or describes the subject
- Necessary for the sentence's full meaning when using linking verbs

Example Sentences:

- The winner is she.
- His explanation was confusing.
- The sky appears blue.

In these examples, "she," "confusing," and "blue" are subject complements that complete the

sentence.

Types of Subject Complements

Subject complements fall into two primary categories based on their grammatical nature:

Noun Complements (Predicate Nouns)

These are nouns or pronouns that rename or identify the subject.

Characteristics:

- Usually follow linking verbs
- Provide a new name or identity for the subject
- Can be a singular noun, plural noun, or pronoun

Examples:

- My brother is a teacher.
- The winners are they.
- It was John who called earlier.

Common Predicate Nouns:

- doctor, teacher, artist, student, winner, child

Adjective Complements (Predicate Adjectives)

These are adjectives that describe the subject directly.

Characteristics:

- Follow linking verbs
- Describe the subject's state or quality

Examples:

- The cake smells delicious.
- She seems happy.
- The night became cold.

Common Predicate Adjectives:

- happy, sad, tall, short, cold, bright, confusing

Identifying Subject Complements in Sentences

Correct identification of subject complements involves understanding their position and function in the sentence.

Steps to Identify:

- Locate the main verb: Is it a linking verb? (e.g., is, was, seem, become, appear, feel.)
- Find the word or phrase immediately following the linking verb.
- Determine whether this word renames (noun/pronoun) or describes (adjective) the subject.
- Confirm that removing this complement would leave the sentence incomplete or nonsensical.

Sample Analysis:

- Sentence: The sky is blue.
 - Linking verb: is
 - Complement: blue
 - Function: Describes the subject the sky
-
- Sentence: The winner was she.
 - Linking verb: was
 - Complement: she
 - Function: Renames the subject the winner

Common Mistakes and Clarifications

Misunderstanding subject complements often leads to grammatical errors. Here are some common pitfalls and clarifications:

- Confusing Subject Complements with Direct Objects

- Incorrect: The teacher made her a leader. (Here, "her" is a direct object, not a complement.)
- Correct: The teacher made her leader. ("Leader" is a predicate noun acting as a subject complement.)

- Using Adjectives as Complements Without Linking Verbs

- Incorrect: The sky is blue.
- Correct: The sky is blue.

(Note: In the correct sentence, "is" is the linking verb, and "blue" is the predicate adjective acting as a subject complement.)

- Omitting the Complement

- Incorrect: The winner is.
- Correct: The winner is she.

(The complement completes the sentence's meaning.)

Practice Questions and Answers

Engaging with practice sentences is essential for mastery. Below are sample questions with detailed answers.

Question 1: Identify the subject complement in the following sentence:

- The movie seems interesting.

Answer:

- Linking verb: seems
- Subject complement: interesting

- Function: Predicate adjective describing the movie

Question 2: Determine whether the complement is a noun or an adjective:

- The children became tired.

Answer:

- Linking verb: became
- Complement: tired
- Type: Predicate adjective (describes the children's state)

Question 3: Rewrite the sentence with a clearer subject complement:

- The winner was she.

Answer:

- The winner was she.

(This sentence correctly uses a predicate pronoun as the complement.)

Applying Knowledge: Constructing Sentences with Subject Complements

Practice constructing sentences helps solidify understanding. Here are some prompts:

- Use a linking verb and a predicate noun to describe a person.
- Use a linking verb and a predicate adjective to describe an object or situation.
- Combine these elements into meaningful sentences.

Sample Sentences:

- The artist is a visionary.
- The weather became stormy.

- My favorite fruit is mango.
- The night seems peaceful.

Summary and Key Takeaways

- Subject complements follow linking verbs and complete the meaning of the subject.
- They are primarily predicate nouns (renaming the subject) or predicate adjectives (describing the subject).
- Correct identification involves recognizing the linking verb and the complement's function.
- Misconceptions often stem from confusing complements with direct objects or omitting necessary complements.
- Practice with varied sentences enhances accuracy in identification and usage.

Final Thoughts

Mastery of subject complements is vital for constructing clear, grammatically correct sentences. Recognizing their role and differentiating between types not only improves writing skills but also deepens understanding of sentence structure. Through careful analysis, practice, and application, learners can confidently identify and utilize subject complements, elevating their command of English grammar.

Whether you're preparing for tests, refining your writing, or simply aiming for better comprehension, focusing on Lesson 6's core concepts about subject complements will serve as a strong foundation for grammatical proficiency.

Question What are subject complements in a sentence? Subject complements are words or phrases that follow a linking verb and provide more information about the subject, such as describing or renaming it. **Answer** How can I identify a subject complement in a sentence? Look for words that come after a linking verb and either rename or describe the subject; these are typically nouns, pronouns, or adjectives functioning as subject complements. What is the difference between a predicate nominative and a predicate adjective? A predicate nominative is a noun or pronoun that renames the subject, while a predicate adjective describes the subject's state or quality; both serve as subject complements. Can a sentence have more than one subject complement? Generally, a sentence has only one subject complement that completes the meaning of the subject, but in complex sentences, multiple complements can be present if they describe or rename different parts. Which verbs are typically used with subject complements? Linking verbs such as 'be,' 'become,' 'seem,' 'appear,' 'feel,' and 'look' are commonly used with subject complements. Why are subject complements important in understanding sentence structure? They help clarify the meaning of the subject and complete the thought of the sentence, making communication clear and precise. Can an adjective be a subject complement? If so, give an example. Yes, an adjective can be a subject

complement. For example, in 'The sky is blue,' 'blue' is an adjective serving as a subject complement describing the sky.

Related keywords: subject complements, predicate nominative, predicate adjective, noun clause, completes the subject, grammar lesson, sentence structure, grammatical function, language learning, English grammar

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