



- PROCESS
- IMPORTANCE
- DEFINITIONS
- INVENTORIES
- MANAGEMENT
- PROGRAM NEEDS
- ANALYSIS
- TRENDS



SPACE PLANNING AND MANAGEMENT

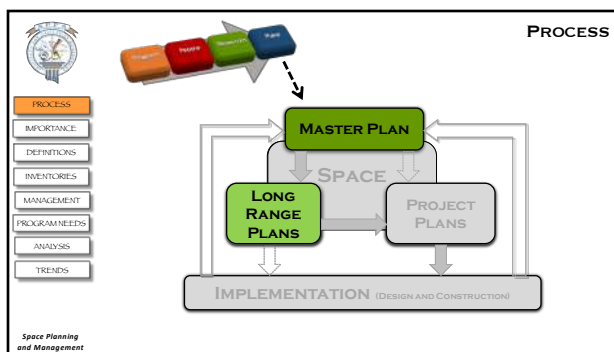
SAN DIEGO, CA
FEBRUARY 2020




JOE BILOTTA,
JBA 1 INCORPORATED
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- PROCESS
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WHY IS IT IMPORTANT?

- Largest Asset
- Provide Physical Environment
 - Program Needs
 - Capital Assessments
 - Research Reporting
- Develop Priorities
 - Capital
 - Maintenance
- Statewide Analysis
- GOOD BUSINESS


HERMAN / Jan Unger



"Here, you want to be plant manager. Take care of this!"

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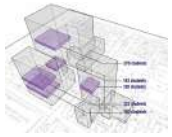
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SPACE USE NEEDED FOR.....

- Master Planning
- Long Range Planning
- Building Programming
- Accreditation Issues
- Budget/Funding Requests
- Maintenance/Repair and Replacement Issues
- Space Efficiency Studies
- Appropriate Space Allocations
- Understand Space Adjacencies
- Research Accountability
- Proper Space Use – Program Locations
- Operating Cost Allocations




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SPACE DIMENSIONS

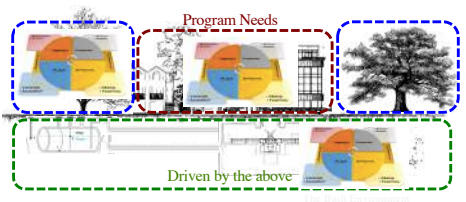


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SPACE IOU

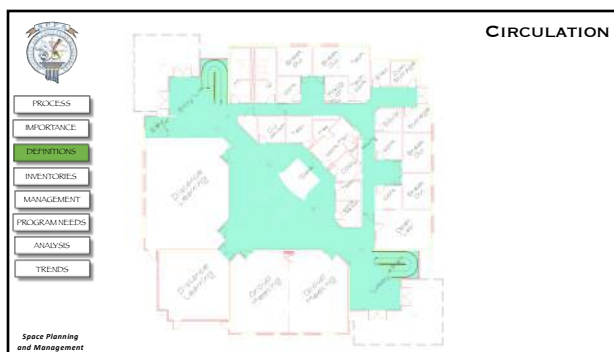


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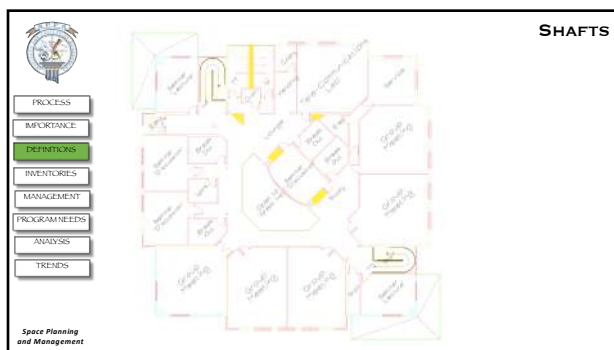
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SOME FUN SPACE FACTS

Percent of Useable ASF – GSF


- Office
- Classroom
- Library
- Research Laboratory
- Other

Largest Campuses

Percent Campus Space



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FICM

Post Secondary Education
**Facilities Inventory and
Classifications Manual**

National Center for Education
Statistics, Revised and Reprinted
April 1997, NCES (92-165r)
nces.ed.gov/pubs/92165r.pdf



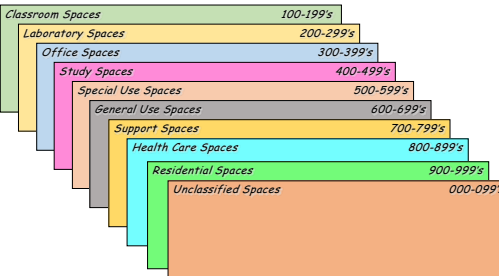
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MAJOR CLASSIFICATIONS



Classification	Range
Classroom Spaces	100-199's
Laboratory Spaces	200-299's
Office Spaces	300-399's
Study Spaces	400-499's
Special Use Spaces	500-599's
General Use Spaces	600-699's
Support Spaces	700-799's
Health Care Spaces	800-899's
Residential Spaces	900-999's
Unclassified Spaces	000-099's

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CLASSROOM SPACES




110	Classroom
115	Classroom Service

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LABORATORY SPACES




210	Class Laboratory
215	Class Laboratory Service
220	Open Laboratory
225	Open Laboratory Service
250	Research/Nonclass Laboratory
255	Research/Nonclass Laboratory Service



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OFFICE SPACES

310	Office
315	Office Service
350	Conference Room
355	Conference Room Service

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410 Study Room

420 Stack

430 Open-Stack Study Room


440 Processing Room

455 Study Service



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TRENDS

510 Armory

515 Armory Service

520 Athletic or Physical Education

523 Athletic Spectator Seating

525 Athletic or PE Education Service

530 Media Production

535 Media Production Service

540 Clinic

545 Clinic Service

550 Demonstration

555 Demonstration Service

560 Field Building







570 Animal Facilities

575 Animal Facilities Service

580 Greenhouse


585 Greenhouse Service

590 Other (All Purpose)



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TRENDS

610 Assembly

615 Assembly Service

620 Exhibition

625 Exhibition Service

630 Food Facility

635 Food Facility Service

640 Day Care

645 Day Care Service

650 Lounge

655 Lounge Service

660 Merchandising





665 Merchandising Service

670 Recreation

675 Recreation Service

680 Meeting Room

685 Meeting Room Service



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TRENDS

710 Central Computer or Telecommunications

715 Central Computer or Telecommunications Service

720 Shop

725 Shop Service

730 Central Storage

735 Central Storage Service

740 Vehicle Storage

745 Vehicle Storage Service

750 Central Service

755 Central Service Support

760 Hazardous Materials Storage

770 Hazardous Waste Storage

775 Hazardous Waste Service

SUPPORT SPACES





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TRENDS

810 Patient Bedroom

815 Patient Bedroom Service

820 Patient Bath

830 Nurse Station

835 Nurse Station Service

840 Surgery

845 Surgery Service

850 Treatment/Examination Clinic

855 Treatment/Examination Clinic Service

860 Diagnostic Service Laboratory

865 Diagnostic Service Laboratory Support

870 Central Supplies

880 Public Waiting

890 Staff On-Call Facility

895 Staff On-Call Facility Service

HEALTH SPACES





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TRENDS

910 Sleep/Study Without Toilet or Bath

919 Toilet or Bath

920 Sleep/Study With Toilet or Bath

935 Sleep/Study Service

950 Apartment

955 Apartment Service

970 House


RESIDENTIAL SPACES





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NON-ASSIGNABLE AND UNCLASSIFIED SPACES

<ul style="list-style-type: none"> 000 Unclassified Facilities 050 Inactive Area 060 Alteration or Conversion Area 070 Unfinished Area WWW Circulation Area W01 Bridge/Tunnel W02 Elevator W03 Escalator W04 Loading Dock W05 Lobby W06 Public Corridor W07 Stairway XXX Building Service Area X01 Custodial Supply Closet X02 Janitor Room X03 Public Rest Room X04 Trash Room YYY Mechanical Area Y01 Central Utility Plant Y02 Fuel Room Y03 Shaft Y04 Utility/Mechanical Space 	
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MANAGING THE INVENTORY

Correct Classifications/Consistency
 Unclassified Spaces
 Multipurpose or Multi Use
 Level of Public Access
 Unique Sub-codes
 Don't Confuse User with Use



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WAYS TO MANAGE SPACE

Team vs Office
 FM vs. Other
 Space Requests
 Perceptions Regarding Costs
 Evaluations
 Lease Back Programs



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USE OF GUIDELINES


- ❖ University Space Planning Guidelines by Bariether & Schillinger
- ❖ WICHE Higher Education Facilities Planning and Management Manuals
- ❖ CEFPI Space Planning Guidelines for Institutions of Higher Education

- ❖ Association of Physical Plant Administrators
- ❖ Mandated Guidelines

❖ CREATE YOUR OWN

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PROGRAM VS. SPACE

Classroom Buildings
Research Centers
Libraries
Residence Halls
Clinics
Day Care Centers
Bookstores



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OUTDOOR SPACE



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RE-EVALUATING PROGRAM NEEDS




Writer and Semiotics Expert, Steve Johnson

Where do Good Ideas Come From?


Space Planning and Management http://www.ted.com/talks/steven_johnson_where_good_ideas_come_from.html

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CLASSROOM AND INSTRUCTIONAL LAB ANALYSIS




**TIME
DEPENDENT**

- ❖ Contact Hours vs. Credit Hours
- ❖ Additional Uses
- ❖ Room Utilization
- ❖ Station Efficiency
- ❖ ASF per station
- ❖ Learning Methodologies



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CLASSROOM ANALYSIS

Contact Hours

Weekly Hours * Room Utilization * Station Efficiency
= Number of Stations
Stations * ASF per Station =
TOTAL ASF


600 stdnts * 2 credits * 1 contacts/day or 1200

40 Hours * 75% Utilization * 67% Station Efficiency or 20.1

1200/20.1 = 59.7 or 60 Stations

60 Stations * 30 ASF per Station =
1800 TOTAL ASF

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LABORATORY ANALYSIS

Contact Hours

Weekly Hours * Room Utilization * Station Efficiency
= Number of Stations

Stations * ASF per Station =
TOTAL ASF

600 stdnts * 2 credits * 4 contacts/day or 4800


40 Hours * 50% Utilization * 80% Station Efficiency or 16

4800/16 = 300 Stations

300 Stations * 60 ASF per Station =
18,000 TOTAL ASF

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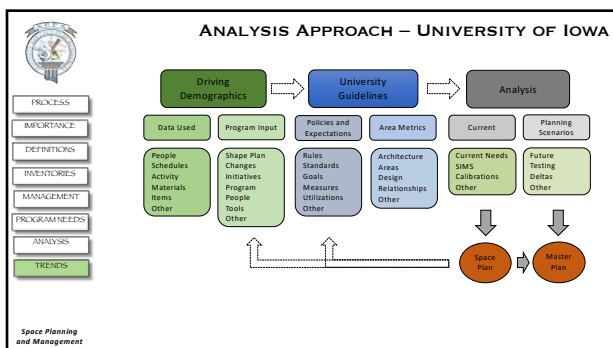
SPACE MODELING



- ❖ Scenario Planning
- ❖ Testing by Administration
- ❖ Testing Operations
- ❖ Data Driven Analysis
- ❖ Can Adjust as Campus Changes
- ❖ Multiple Uses
- ❖ NO REPORTS !

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[illegible]

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TEACHING AND LEARNING PEDAGOGIES

- PROCESS
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[illegible]


The diagram illustrates the components of a Learning Management System (LMS). It is structured as follows:

- TEACHING AND LEARNING PEDAGOGIES** (Main Title)
 - Process** (Section Header)
 - IMPORTANCE
 - DEFINITIONS
 - PREVIOUS
 - MANAGEMENT
 - PROGRAM NEEDS
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 - TRENDS
 - Summar** (Section Header)
 - Instructional space intended for focused group work. Instructor is typically part of the group and does not lecture for a few minutes per week.
 - The majority of the time is consumed at interaction among the students. Learning, collaboration, and discussion are most prevalent.
 - Review** (Section Header)
 - The traditional classroom space supporting didactic, one-way delivery of content.
 - Space often includes interactive way.
 - Common practice using teachers or computers but it is primary practice is lecture-based instruction. Larger rooms are favored and are not only lecture.

The diagram also includes several images illustrating different learning environments:

- A circular logo featuring a globe and the text "TEACHING AND LEARNING PEDAGOGIES".
- A photograph of a modern, open-plan learning space with students working in groups at tables.
- A photograph of a traditional lecture hall with students seated in rows, facing a screen.
- A photograph of a classroom with students seated at desks, facing a screen.
- A photograph of a classroom with students seated at desks, facing a screen.

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- PROCESS
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TEACHING AND LEARNING PEDAGOGIES



Distance/Flips

Class learning occurs through a combination of face-to-face instruction with the capability of traveling and interacting groups. Spaces promote a variety of pedagogies in this process. Project learning and discussion occur periodically during a class period.


Computer

Instructional space that requires the use of computers for the majority of the class period. Computer classes can be used by a variety of programs. Spaces are also flexible in space design when classes are not being held. Hardware and software are typically connected amongst many programs.

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TEACHING AND LEARNING PEDAGOGIES



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TEACHING AND LEARNING PEDAGOGIES

Flexible/Adaptable/Modular Environment

Adaptable spaces are those that can be reconfigured for a variety of uses. These spaces are meant to support change within the space. They are not confined to one type of pedagogy.





Lecture Breakout

A space where a large lecture would meet for part of the class time, then break out into smaller groups, possibly meeting again in a large lecture before completing the class period.




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TEACHING AND LEARNING PEDAGOGIES

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Table-Based

This is similar to lecture space but has a large table, per person, for private and quiet individual learning or group study space where not lecturing.



Telepresence (video conference)

Smaller classrooms with video conference capabilities. These spaces must be connected to other locations on a continuous basis (almost every class period).



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TEACHING AND LEARNING PEDAGOGIES

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Presentation

This space is a flexible classroom with tools to teach large presentation skills. Recording capabilities and feedback from the audience is essential.




Movement

This classroom is for instruction that requires physical movement of students that is not enough to be considered a laboratory. This can be used in the early, intermediate, honors, and other programs.



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TEACHING AND LEARNING PEDAGOGIES

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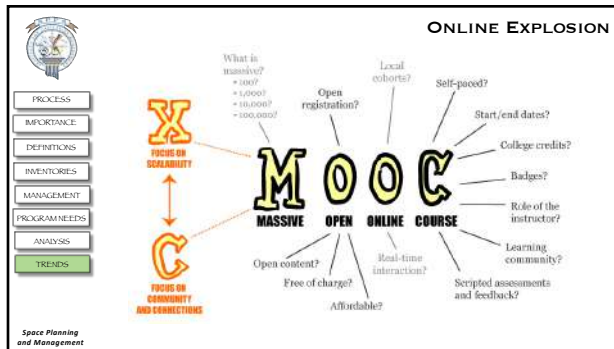
Audio Visual Simulation

Pedagogical activities will be aimed at audio simulation on the primary pedagogical level. A physical simulation is considered a laboratory. These spaces are desirable.

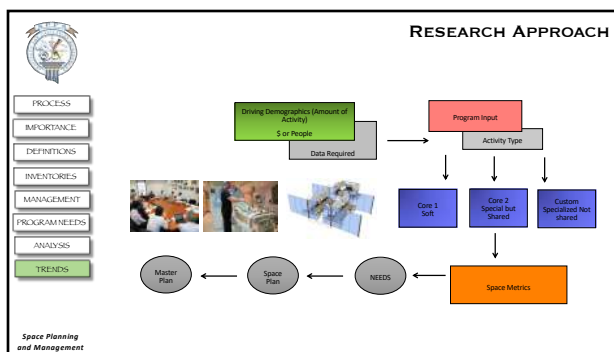


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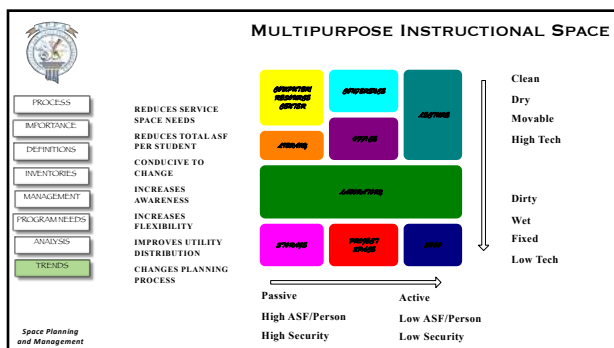
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2D VS 3D

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❖ **Most Space Planning is One-Dimensional**

❖ **Master Planning vs. Project Planning**

❖ **Postage Stamp vs. Performance Hall**



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130 vs 6000

15X

2D VS 3D

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*Space Planning
and Management*

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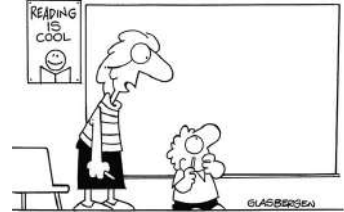


- PROCESS
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STUDENT EXPECTATIONS

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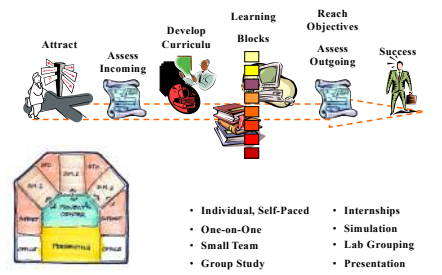
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STUDENT CENTERED



- Individual, Self-Paced
- One-on-One
- Small Team
- Group Study
- Clinical

- Internships
- Simulation
- Lab Grouping
- Presentation
- Learning Resources

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- PROCESS
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SPACE AND BUILDING SIMULATION



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SPACE PER STUDENT IS RISING

- Additional Tools
- Reduced Class Sizes
- Computers at Stations
- Imaging and Projections Systems
- Collaborative Spaces
- Higher Percentage of Experiential
- Academic Support Programs



Time




Space per Student

Does Web Based Instruction
Balance the Increase in Space?

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PROCESS

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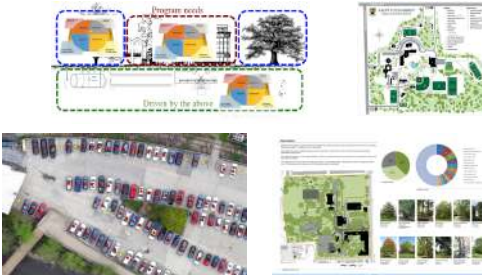
MANAGEMENT

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OUTSIDE SPACE ASSETS



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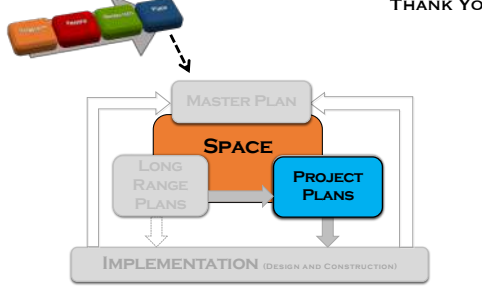
MANAGEMENT

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THANK YOU



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