

FOG DISPENSER



ASHRAE
Golden Gate
Chapter

APRIL 2011 TECHNOLOGY TOUR

MAIN PROGRAM: LANEY COLLEGE ENVIRONMENTAL CONTROL TECHNOLOGY LAB TOUR



Speaker:

**Nick Kyriakopedi, ECT Department
Chair**

The Laney ECT lab is an ideal environment to get hands-on experience in state-of-the-art residential, light commercial and commercial HVAC systems.

The 8,000 square foot Environmental Control Technology (ECT) Lab holds a full size commercial hydronic system consisting of all major

components, including boiler, chiller, heat exchangers, cooling tower, variable frequency drives (VFDs), variable air volume boxes (VAV), economizers, sensors, and controls. The lab allows instructors to simulate a variety of real-life problem scenarios, to install temporary faults and bugs, and to have students solve complex problems as a team.

Employers, students, and faculty can look forward to a truly state-of-the art controls lab facility preparing California's green workforce in critical skills sets needed in the coming decades.

Free Tour. Please Register.

APRIL 2011 LUNCH MEETING

MAIN PROGRAM: GREEN PRACTICES AND ASHRAE STANDARDS – How to Have a Healthier, More Profitable Building with Better Mechanical/Electrical Design (and More Thought to the Building Envelope) *Continued on page 2*

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**THURSDAY, APRIL 7, 2011
(10:00 am to 11:00 am)
Laney College Room B150**

AGENDA:

10:00 am

Tour Begins

11:00 am

Adjourn and carpool to
Chapter Lunch meeting

**THURSDAY, APRIL 7, 2011
(11:30 am to 1:30 pm)
Scott's Seafood Jack London
Square Oakland**

AGENDA:

11:30 am

Registration and Social Hour

12 Noon

Lunch with announcements
and introductions

12:30 pm

Main Program

1:30 pm

Adjourn

COST:

GG/Redwood Empire ASHRAE
and SF-ASPE Members,
but please register

Before 3pm, Fri. 4/1 \$40.

After 3pm, Fri. 4/1 \$50.

**Non-Members,
but please register**

Before 3pm, Fri. 4/1 \$50.

After 3pm, Fri. 4/1 \$55

Students/Voucher Holder
Free, but please register

GOLDEN GATE ASHRAE
FOG DISPENSER
VOLUME XLVIV-NUMBER 5,
APRIL 2011 COVER

Speaker:

JAMES L. NEWMAN, CEM, CSDP, LEED® AP, OPMP
Owner/Managing Partner, Newman Consulting Group, LLC
ASHRAE Distinguished Lecturer



Jim Newman is an active member of many technical societies, is a member of the Construction and Design Committee and of the Speakers Bureau of the Engineering Society of Detroit (ESD), and ESD's spokesperson on energy and environmental issues. He is a Fellow of the ESD.

Jim is a trainer for ASHRAE Energy Standard 90.1 and has trained hundreds of architects, engineers, code officials, and contractors on the use of the Standard. He has been active in several ASHRAE TCs, was Vice-chair

of the Industrial Air Conditioning TC in the 1970s, chaired many symposia and was responsible for the rewrite of 10 chapters in the Applications Guide and Data Book during that time. He has also been active on TC 5.5, Air-to-Air Energy Recovery, for the past 10 years. He was a member of the committee that developed ASHRAE's Energy Policy Document for 2008 and a Provisional Energy Auditor for the pilot program of the new ASHRAE Building Energy Quotient (bEQ).

He is a member of the Energy and Environment Committee of BOMA International, Chair of the Energy Committee of the Detroit BOMA chapter, a past Board member of the Detroit Regional Chapter (DRC) of the U.S. Green Building Council (USGBC) and of the Detroit ASHRAE chapter. Jim is Immediate Past Co-Chair of the Public Policy Committee of USGBC-DRC and makes presentations to municipalities on how they can Green their cities and attract Green development.

Jim lectures at area colleges and universities, is a frequent speaker on radio and television programs, and provides webcasts and podcasts on Indoor Air Quality, Energy, and Sustainable Buildings. He also teaches technical review classes on taking the examination to become a LEED Accredited Professional.

Jim has published numerous papers on Indoor Air Quality, Energy Conservation and USGBC and LEED, and is an internationally recognized speaker on these issues and on Green Design and Efficient Operating and Maintenance practices. His most recent book, co-authored with two attorneys, *Current Critical Issues in Environmental Law – Green Buildings and Sustainable Development*, was published by Lexis Nexis in June 2008.

He writes a column for the monthly Newsletter of the Detroit ASHRAE Chapter on LEED and Sustainable and is LEED Project Administrator for many LEED-certified buildings in the United States as well as elsewhere in the world.

PRESENTATION SUMMARY:

Learn how to surpass the ASHRAE Standards to refine and better maintain your mechanical and electrical/lighting systems. This will help conserve energy, enhance the health, well-being, and productivity of the occupants of your clients' buildings, and save (read that "make") money for your client, the building owner.

2011 EVENT CALENDAR:

► THURSDAY, APRIL 7 TECH TOUR

10:00 am – 11:00am

LOCATION: Laney College, Oakland

TOPIC: [Environmental Control Technology Lab Tour](#)

SPEAKERS: Nick Kyriakopedi, Department Chair

11:30am – 1:30pm

LOCATION: Scott's Seafood, Oakland

TOPIC: [Integrated Design](#)

SPEAKER: Jim Newman, Newman Consulting Group, ASHRAE DL

► THURSDAY, APRIL 21

10am-1pm

LOCATION: www.ashrae.org/education/page/557

TOPIC: [Ground Source Heat Pump Systems](#)

SPEAKER: ASHRAE Society Webcast

► THURSDAY, MAY 12

5:30 pm - 9:00 pm

LOCATION: PG&E Pacific Energy Center, San Francisco

TOPIC: [Showcase/Tech Awards/Student Science Fair](#)

SPEAKERS: Vendors and Award Recipients

► THURSDAY, JUNE 9

5:30 pm - 9:00 pm

LOCATION: Scott's Seafood, Oakland

TOPIC: TBD

SPEAKER: TBD

Dear Golden Gate ASHRAE Members and Guests,

As the Japan nuclear power plant crisis deepens as I write this, I think back to my early engineering career; a part of which I spent designing UHR/UHS (ultimate heat removal/sink) systems...think cooling towers on steroids, to cool the reactor core to prevent meltdown. Today we are aware that technology only gets us so far without mother-nature reminding us who is boss. Our thoughts and prayers go out to those affected in Japan and here in California. As a sailor I am especially saddened by the destroyed marina in Crescent City and the damage in Santa Cruz harbor.

In March we had a joint meeting with our Redwood section. Thanks to Michelle Whitsitt, Redwood Section President for co-hosting the meeting. Redwood section works hard to keep the North Bay ASHRAE members engaged and energized and it is always great to see them at our yearly joint meeting.

We always appreciate the time and effort put in by our chapter-meeting speakers. It is not an easy task to put together an informative and timely presentation of interest to our membership. ASHRAE has long had a tradition and standing rules on what is acceptable and what is not, on the issue of commercialism. The speakers last month were versed in this regard by our program chair but they fell astray along the way. As it happened I felt obliged to step in and stop the speaker in mid-slide after a particularly negative comment directed at a competitive organization. That said, our program chair told me afterwards that there were some in the audience who told her that they did not see any problems with the way the speakers approached the subject....

To make the speakers aware of the ASHRAE policy, our standard procedure is to send the speakers the CTTC slide program on "Keeping Commercialism out of ASHRAE Presentations". In the future 1 thing we will do is be more proactive in getting a formal/signed acknowledgement that each presenter has read and understands the ASHRAE commercialism policy.

At the BofG meeting we decided that I would discuss commercialism in this month's president's message and I spent some time writing a first draft that I sent out for comments early in the process. I knew the rant (or prose with a red ass as I prefer) was over the top, but I wanted to get good constructive criticism on this complex issue, I had such fun writing it, and the plan was to take the constructive comments and rewrite over the weekend. I opined with examples that basic problems with the commercialism policy is that by its very nature it deals in grey areas, it is selectively enforced-many times for political reasons, does not allow latitude for local considerations on what is right for each chapter's membership, and has the preconceived notion that vendors are guilty of commercialism regardless (as a vendor this particularly galls me).

So as I started to do the rewrite taking all this into account, I could not quite lose that sense of indignation in me and so I am recusing myself from this topic. I will line up someone to discuss this in detail with you in next month's Fog Dispenser.

April's meeting is a TWO-FER! How can you beat that? Answer: YOU CAN'T! A morning tour of Laney College Environmental Lab and followed by a luncheon chapter meeting at Scotts SeaFood at Jack London Square! Want to take BART? Laney College is close to BART. I want to let you know that there will no doubt be rides available to take you to Scotts and get you to BART after lunch, if that is a help to anyone on the fence about attending.

See you there and as always, your comments are welcome at gharbison@calhydro.com



Best regards,

Gary Harbison,

Golden Gate ASHRAE President, 2010-2011



“April – 2011.....Time Marches On”

Tom Gilbertson, Chapter Historian

“Whoa!....How the World has changed in just one month!....Since the last “Historian Article”...just look at the landscape.... anybody thinking about a career in nuclear power?....and how about a vacation trip to the Middle East?....what does that have to do with ASHRAE?.....“historically speaking”... more has happened in the last 30 days than has occurred in a lifetime when ASHRAE was founded in 1894....but we are “here” now.... and how do we....as ASHRAE members fit into the “history” of our technologically based engineering society....

Much of what has been the focus of the last 30 days could not have taken place without the technology that is the basis for ASHRAE.....start with actually having a “nuclear plant”.....the issue of “heat transfer” across shell & tube heat exchangers.....air streams being moved by large fans....air being filtered by documented designs for particle separation....water being cooled in a cooling tower....(not that the Japanese plant had this system...but most nuclear plants do)...and the “parabolic cooling tower” has become the symbol to the public for a nuclear plant...(although this is not always the case)....centrifugal water chillers to provide cooling for facilities....controls and instrumentation to make systems and equipment behave....in fact without ASHRAE, and its technology.... you might never have had a nuclear plant, in the first place....

Mankind took its time developing all the substantive technology issues that form the basis for our “ASHRAE Society”...and then when we as engineers “applied” this technology...ASHRAE became the great enabler for...among many items...Nuclear Power”!.... (or in the spirit of the day)....the ability to have a nuclear plant...can be “blamed” on ASHRAE...

You see ASHRAE...has an enormous historical legacy that has allowed most of the “enjoyed-human comforts”...as well as the “industrial improvements”....to be carried out....both with affordable, success...As examples....does anyone want to even consider open-heart surgery in an un-air-conditioned operating suite that did not have superior HEPA Filtration....and precise room temperature controls...?...I don’t think so...Or for that matter who would consider consuming steak, or fish ...that had not been treated to refrigeration....or who does not enjoy the advantages of what semiconductors are able to do....(try making them without the technologies that are practiced in ASHRAE)....and who does not enjoy a cool “adult beverage”...and some time that is made with our old friend...“ice”?...What is clear to me is that it is ASHRAE...through the years....that has done so much to improve the lot of mankind.... And in the case of nuclear power...actually made it a reality....Least we feel too guilty about being the “Great Enabler”...because of all of our ASHRAE-based technology skills....and someone accuses us of “causing nuclear power”...don’t forget all the items that the affordable electrical power provided to thousands of people....and that without the historic background of ASHRAE.....would not have occurred.

Tyler Bradshaw, ASHRAE Golden Gate CTT Committee Chair

2011 Technology Awards are in

Thanks to all who submitted a project for this year's competition. All projects are currently in the judging process by the chapter's board. Results will be announced during the awards ceremony at the May chapter meeting.

Free ASHRAE Webcast April 21, 2011

GROUND SOURCE HEAT PUMP SYSTEMS:

Putting the Earth to Work for You

April 21, 2011 1:00 – 4:00 P.M. EDT

Brought to you by the ASHRAE Chapter Technology Transfer Committee

Hear from leading experts on how HVAC system and ground characteristics affect ground heat exchanger design, how to enhance ground source heating design system efficiency, and how to avoid design and operations pitfalls. Get the solutions to these topics and more by participating in this free webcast sponsored by ClimateMaster, Mammoth, Taco, the International Ground Source Heat Pump Association, and the ASHRAE Foundation.

For more information about the program, presenters, continuing education credits, sponsorships, and heat pump resources please visit us at www.ashrae.org/GHPwebcast.



Ross Farris

There was no marble draw at the last meeting, though we still had a raffle. There also will not be a marble draw at next month's meeting, but we are hoping to resume the marble draw at the following meeting.

As always, we are in need of sponsors for each meeting. If your company donates prizes, your company's logo will display on a slideshow during the non-speaker portions of the meeting.

Please contact Ross Farris for more details: RFarris@glumac.com - 415.398.7667.

How to Participate

- You may register to view the Webcast on your PC
- You may host a webcast site for your colleagues
- View the webcast at a site

PDH Credits

Three (3) Professional Development Hours or three (3) AIAP Learning Units may be awarded to viewers who complete the "Participant Reaction Form" by May 5, 2011.

The Presenters

- LYNN G. BELLENGER, P.E.
ASHRAE President 2010-11
Partner | Pathfinder Engineers & Architects | Rochester, NY
- KIRK MESCHER, P.E., LEED® AP
Principal | CM Engineering, Inc. | Columbia, MO
- MICK SCHWEDLER, P.E., LEED® AP
Manager, Applications Engineering | Trane Company | La Crosse, WI
- JEFF SPITLER, PH.D., P.E.
Professor | Oklahoma State University | Stillwater, OK

Registration

There is no fee for registration. Online registration will begin March 21, 2011, at www.ashrae.org/GHPwebcast. If you have any questions, call 678-539-1200 or email ashrae-webcast@ashrae.org

Join the CTTC Committee

If you like to assist the chapter and get involved with ASHRAE, the Chapter Technology Transfer Committee is one of the best places and we could use your help. Talk to a board member or contact Tyler Bradshaw at tbradshaw@integralgroup.com.

2011 PRODUCT SHOW – GOLDEN GATE CHAPTER, ASHRAE

By Hans Kaufmann, Product Show Chair

The annual Golden Gate Chapter ASHRAE Product Show will be held on Thursday, May 12th, 2011 at the PG&E Pacific Energy Center in San Francisco. This annual event is a main fund raiser for the chapters' contribution to ASHRAE Society Research projects. If you are a GG ASHRAE member the price for a 3'x5' table is \$150, with dinner costs in addition to the table charge (non-member cost is \$200.00). We have had very good response so far with a number of vendors already signed up.

This year we have invited our brothers and sisters of San Francisco ASPE to join us. SF ASPE will be hosting technical sessions at the Pacific Energy Center during the day and joining us for the product show, social hour and hopefully our dinner meeting in the evening. This joint venture should prove of interest as the many San Francisco engineering firms that support ASHRAE also have plumbing divisions. This will also provide some new faces for our vendors to talk with during the product show. Please consider participating in the product show. We would love to see you there.

Contact Hans Kaufmann at hkaufmann@calhydro.com or phone: 510-266-7885 to get an application form.

To register go to: <http://extension.berkeley.edu/cat/course2546.html>

***Do you have a TECHNICAL ARTICLE
you would like to share in an
upcoming Fog Dispenser? We'll
give you a free business card
advertisement for the month!***

***Contact Annie Foster at
annie.foster@wspfk.com
for more details.***

EDUCATION OPPORTUNITIES

The Tour & Andersson Hydronic College will present the seminar "The Three Hydronic Conditions" in San Francisco on April 11th, from 12:00 noon-5 p.m. at the InterContinental Hotel. Lunch is provided. The TA Hydronic College has been an education resource for hydronic engineering in Europe and other world markets, attended by over 3,000 design and facility engineers annually. In 2010, TA began presenting the seminars in North America, in concert with Victaulic. The seminar is free, and is presented vendor-neutral. Certificates of Attendance are provided for up to 4 PDH. Attendees also receive a copy of the reference book "Total Hydronic Balancing" by Robert Petitjean. To register or learn more about the seminars, go to www.TAHydronicCollege.com.

Symposium on Information Visualization in Commercial Buildings: Design, Technology, and Human Behavior

Wednesday, April 13, 2011, 8:30 AM – 4:30 PM

PG&E Pacific Energy Center, 851 Howard Street San Francisco, The event will also be webcast.

New web-enabled technologies coupled with powerful information visualization methods can provide valuable insight to building occupants, managers, and designers. At this symposium, designers, software developers, researchers, and usability specialists will present theoretical approaches for influencing behavior change, discuss the challenges inherent in such efforts, and provide a wide range of examples and case studies. (Descriptions of the talks and speaker bios are on the attached PDF.)

This event is free and open to the public. It is organized and sponsored by the Center for the Built Environment (CBE), at the University of California, Berkeley, and the PG&E Pacific Energy Center.

Pre-registration for the event is strongly recommended as we expect a capacity audience.

Register for the symposium in San Francisco at: <http://www.pge.com/pec/classes/4669.htm>

Register for the live webcast: <http://www.pge.com/pec/classes/4775.htm>

Agenda Overview:

8:30 am: Registration, refreshments, and networking

9:00 am: Morning Session: Perspectives on information design and influencing behavior change

"Information, design, and the psychology of behavioral change"

Kath Straub, Director, Usability.org

"Designing for the smartest part of smart buildings — people"

Steve Bishop, Global Sustainability Lead, IDEO

"Empowering occupants for behavioral change"

Barbara Ciesla, Vice President, HOK

"Data visualization technologies and customer insights"

Saul Zambrano, Director, Integrated Demand-side Management Core Products, PG&E

12:30: Lunch Break

1:30 pm: Afternoon Session: Applications, tools, and outcomes

Michael Murray, Founder and CEO, Lucid Design Group

"Building occupant feedback systems and plug loads: opportunities and results"

Jessica Granderson, Research Scientist, Lawrence Berkeley National Laboratory

"Building energy information systems: Case study and state of the technology highlights"

David Helliwell, Co-founder, Pulse Energy

"Checking the pulse of a large portfolio of buildings"

Paul Mathew, Staff Scientist, Lawrence Berkeley National Laboratory

"Presenting energy data to support action-oriented benchmarking"

4:30 pm: Adjourn

We are looking forward to this unique event, and hope that you will join us.

Regards, David Lehrer

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390 Wurster Hall #1839, Berkeley CA 94720-1839
tel: 510.642.4950 | fax: 510.643.5571
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Erica Stewart

To be a member of the Golden Gate Chapter, you first must be a member at the Society level www.ashrae.org/members/page/589). As of last July Society dues are now \$180, and still \$20 a year for students. You can renew your Chapter membership at the same time for \$50 a year, \$20 a year for students. Note that dinner meetings for full-time students are free! Visit our web-site to find out more: <http://www.ggashrae.org/faq.htm>.

Please welcome our new members:

MEMBERS

Mr. David Brunette
Mr. Frank Davis III
Mr. Paul K Passantino
Mr. Tom Rodgers

ASSOCIATES

Mr. Sameer Behere
Mr. Paul Becker
Mr. Eric Concannon
Mr. Philip Allen Herve
Miss Robin Liu
Mr. Kazim Mirza
Ms. Jennifer Roecks
Mr. Chaitanya Sharma
Mr. Nathan Bruce Taylor

STUDENTS

Mr. Kunal V Desai

CHAPTER RESEARCH COMMITTEE

Jeff Violet, ASHRAE Golden Gate Research Committee Chair

ASHRAE Research Report

This year the ASHRAE Research campaign is starting off very well!
A special thank you to contributors who gave on the honor level or above:

Research Associates (\$2,500+)

- Bay Area SMACNA

Major Donors (\$1,000+)

- Golden Gate ASHRAE Chapter
- Redwood Empire ASHRAE Chapter

- Glenn Friedman

Major Donors (\$500+)

- Richard Charles

- James MacDonald

- Taylor Engineering

Major Donors (\$250+)

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- Nazzaro and Associates

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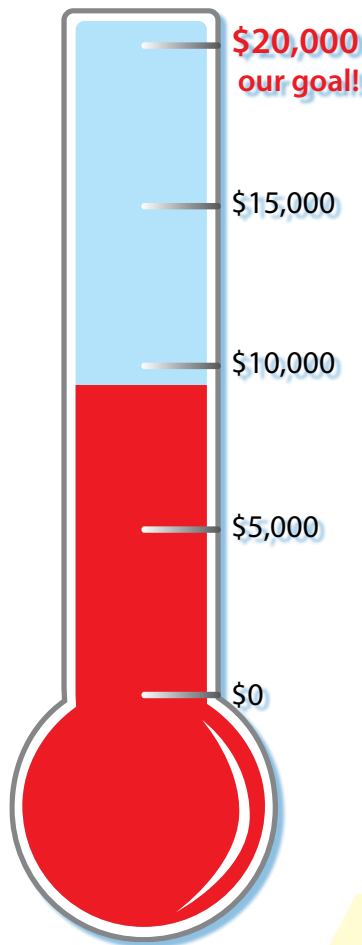
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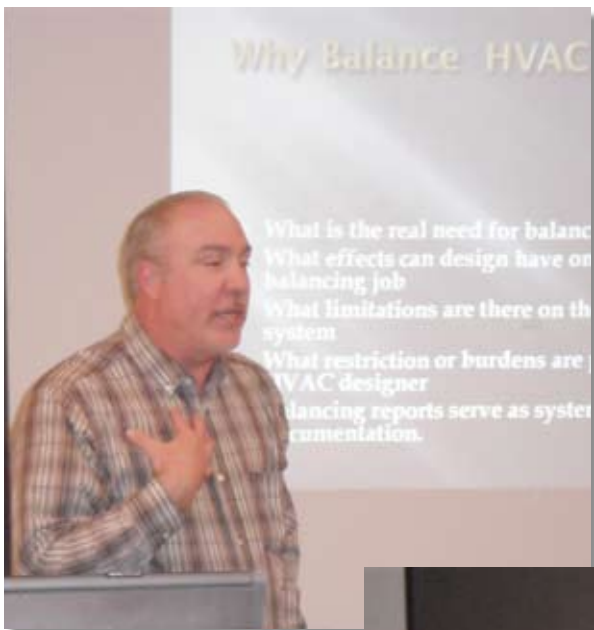
Donations are tax deductible, by check, credit card or online at www.ashrae.org.

To make contributions please contact Jeff Violet, jcviolet@yahoo.com, 415-724-1214

Our research goal for the 2010-2011 year is \$20,000. We are currently at \$9,227.



MEETING RECAP



FUN PAGE!

Hopefully everybody enjoyed January's savory "cake" recipe.

Here is another: INDIAN CAKE WITH PEAS

Ingredients:

- 150g flour (1/3lb)
- 2tsp baking powder
- 3 eggs
- 100g (just shy of 1/4lb) grated mozzarella
- 130 ml (½ cup) of milk, warmed (1 minute in microwave)
- 80ml (1/3 cup) of canola oil
- 200g (7 oz) of frozen English peas
- 2 shallots
- 1tbsp of olive oil
- 1 tbsp (or to taste) of curry powder
- salt, pepper



Preheat oven to 350degF. In a bowl, mix flour, baking powder and eggs. Add slowly the oil, then the warm milk. Finally add the mozzarella. Season your cheese mixture to taste.

Mince the shallots and sauté in a frying pan in the olive oil for 10mins on medium heat (the shallots should become translucent but not really brown). Add the peas and the curry and cook for a few minutes, until the peas are not frozen any more.

Add the pea/shallots to the cheese mixture. Pour in a non-stick 10" cake dish (not oiled). Bake for 45mins. Let the cake cool down before removing from dish.

You can eat it cold or slightly warm with a green salad or with drinks before dinner with friends.

Enjoy!

Isabelle Lavedrine

Associate | Fluid Dynamics Specialist

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- One time rate: \$25
- 4-month rate: \$90 (\$20/mo.)
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If you are interested in advertising in the Fog, please contact Annie Foster Courtney at annie.foster@wspfk.com.



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CHAPTER COORDINATOR

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