FA17: CMPE-281 Sec 02 - Cloud Technologies

CMPE 281 - Cloud Technologies - Fall 2017

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| **Instructor**: | Paul Nguyen |
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| **Office Hours:** | Saturdays, 3:00 pm – 4:00 pm (by appointment only) |
| **Class Days/Time:** | Saturdays 9:00 am – 11:45 am |
| **Classroom:** | ENG 189 |
| **Prerequisites:** | CMPE 272 (Co-Req) or Instructor Consent. *Previous completion of CMPE 202 highly recommended.  Students who do not provide documentation of having satisfied the class prerequisite and co-requisite requirements (if any) by the second class meeting will be dropped from the class.* |

| **Week** | **Date** | **Topics, Readings, Assignments, Deadlines**  [**CMPE 281 - Books, Resources & Tools**](https://sjsu.instructure.com/courses/1242954/pages/cmpe-281-books-resources-and-tools) |
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| **1** | **8/26** | **Topics:**   Introduction to Cloud  **Readings:**   * [**The Practice of Cloud** (Links to an external site.)Links to an external site.](http://the-cloud-book.com/):   + Chapter 1. Designing in a Distributed World   **Assignments:**   * [CMPE 281 - Co-Req & Honesty Pledge](https://sjsu.instructure.com/courses/1242954/assignments/4522935) * [CMPE 281 - CANVAS TEST](https://sjsu.instructure.com/courses/1242954/assignments/4522934) * [CMPE 281 - AWS Account and Videos](https://sjsu.instructure.com/courses/1242954/pages/cmpe-281-aws-account-and-videos) * [AWS Technical Essentials Training (Links to an external site.)Links to an external site.](https://aws.amazon.com/activate/benefits/training/#technical) * [CMPE 281 - LAB #1 - AWS Deploy EC2](https://sjsu.instructure.com/courses/1242954/assignments/4525032)   **Handouts:**   * [CMPE 281 - AWS Account and Videos](https://sjsu.instructure.com/courses/1242954/pages/cmpe-281-aws-account-and-videos) * [1708 - CMPE-281-F17-Nguyen (v1.0).pdfPreview the documentView in a new window](https://sjsu.instructure.com/courses/1242954/files/47654829/download?wrap=1) * [honestyPledge 20160202.pdfPreview the documentView in a new window](https://sjsu.instructure.com/courses/1242954/files/47654830/download?wrap=1) * [Introduction to Cloud Computing.PDFPreview the documentView in a new window](https://sjsu.instructure.com/courses/1242954/files/47670943/download?wrap=1) * [Amazon Web Services.PDFPreview the documentView in a new window](https://sjsu.instructure.com/courses/1242954/files/47670942/download?wrap=1) |
| **2** | **9/2** | **Topics**:   Cloud Admin & Scaling / SaaS & Multi-Tenancy (Part 1)  **Readings:**   * [**The Practice of Cloud** (Links to an external site.)Links to an external site.](http://the-cloud-book.com/):   + Chapter 2. Designing for Operations   + Chapter 3. Selecting a Service Platform * [Architecture Strategies for Catching the Long Tail.pdfPreview the documentView in a new window](https://sjsu.instructure.com/courses/1242954/files/47774039/download?wrap=1)   **Assignments:**   * [Multitenant Magic - Force.com Data Architecture (Video) (Links to an external site.)Links to an external site.](https://www.youtube.com/watch?v=9OtdYeCAZ1A) * [CMPE 281 - LAB #2 - AWS Elastic Load Balancer](https://sjsu.instructure.com/courses/1242954/quizzes/1223119)   **Handouts:**   * [Cloud Computing Mindmap.pngView in a new window](https://sjsu.instructure.com/courses/1242954/files/47682937/download?wrap=1) * [SaaS and Multi Tenancy.PDFPreview the documentView in a new window](https://sjsu.instructure.com/courses/1242954/files/47682936/download?wrap=1) * [AWS Essentials - Module 1 - Introduction and History of AWS.pdfPreview the documentView in a new window](https://sjsu.instructure.com/courses/1242954/files/47774040/download?wrap=1) * [AWS Essentials - Module 2 - AWS Storage & Content Delivery.pdfPreview the documentView in a new window](https://sjsu.instructure.com/courses/1242954/files/47774038/download?wrap=1) * [AWS Essentials - Module 3 - AWS Compute Services.pdfPreview the documentView in a new window](https://sjsu.instructure.com/courses/1242954/files/47774037/download?wrap=1) * [AWS Essentials - Module 3 - AWS Networking Services.pdfPreview the documentView in a new window](https://sjsu.instructure.com/courses/1242954/files/47774036/download?wrap=1) * [AWS Essentials - Module 4 - AWS Managed Services & Databases.pdfPreview the documentView in a new window](https://sjsu.instructure.com/courses/1242954/files/47774035/download?wrap=1) * [AWS Essentials - Module 5 - AWS Deployment & Management.pdfPreview the documentView in a new window](https://sjsu.instructure.com/courses/1242954/files/47774034/download?wrap=1) |
| **3** | **9/9** | **Topics:**  Cloud Admin & Scaling / AKF Scale Cube (Part 2)  **Readings:**   * [**The Practice of Cloud** (Links to an external site.)Links to an external site.](http://the-cloud-book.com/):   + Chapter 4. Application Architectures   + Chapter 5. Design Patterns for Scaling |
| **4** | **9/16** | **Topics**:   Go on Docker & Google Cloud |
| **5** | **9/23** | **Topics**:  Go Programming (Language Crash Course) |
| **6** | **9/30** | **Topics**:  Go Programming (Cloud Design Patterns - Part 1) |
| **7** | **10/7** | [***Silicon Valley Code Camp Day (Extra Credit Event) (Links to an external site.)Links to an external site.***](https://www.siliconvalley-codecamp.com/) |
| **8** | **10/14** | ***Midterm Exam*** |
| **9** | **10/21** | **Topics:** Go Programming (Cloud Design Patterns - Part 2) |
| **10** | **10/28** | **Topics**:   NoSQL Data Models (Part 1)  **Readings:**   * [**NoSQL for Mere Mortals (Links to an external site.)Links to an external site.**](http://proquest.safaribooksonline.com.libaccess.sjlibrary.org/book/databases/9780134029894)**:**    + Chapter 1. Different Databases for Different Requirements   + Chapter 2. Variety of NoSQL Databases |
| **11** | **11/4** | **Topics**:   NoSQL Data Models (Part 2)  **Readings:**   * [**NoSQL for Mere Mortals (Links to an external site.)Links to an external site.**](http://proquest.safaribooksonline.com.libaccess.sjlibrary.org/book/databases/9780134029894)**:**    + Chapter 3. Introduction to Key-Value Databases   + Chapter 4. Key-Value Database Terminology   + Chapter 5. Designing for Key-Value Databases |
| **12** | **11/11** | **Topics**:   NoSQL Data Models (Part 3)  **Readings:**   * [**NoSQL for Mere Mortals (Links to an external site.)Links to an external site.**](http://proquest.safaribooksonline.com.libaccess.sjlibrary.org/book/databases/9780134029894)**:**    + Chapter 6. Introduction to Document Databases   + Chapter 7. Document Database Terminology   + Chapter 8. Designing for Document Databases |
| **13** | **11/18** | **Team Game Day** |
| **14** | **11/14** | ***Thanksgiving Break (No Class)*** |
| **15** | **12/2** | **Project Demo (Day 1)** |
| **16** | **12/9** | **Project Demo (Day 2)** |
| **17** | **12/16** | ***Final Exam (Location and Times TBD)*** |