Cloud Application Domain

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Thapar Institute of Engineering and Technology, Patiala.

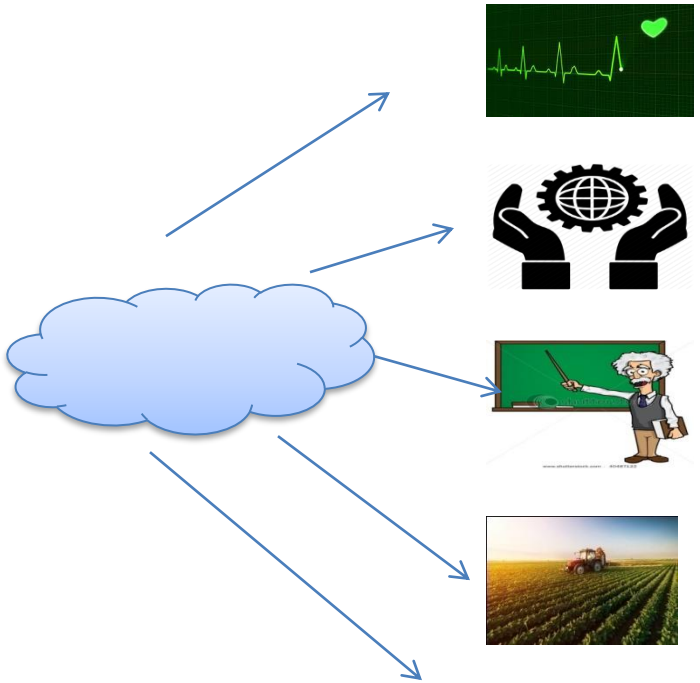
THAPAR INSTITUTE
OF ENGINEERING & TECHNOLOGY
(Deemed to be University)

Session Objectives

After completion of this session you will learn

- ✓ **Major Application Areas**

Major Application Domains



- Health Sector

- E-governance

- Education

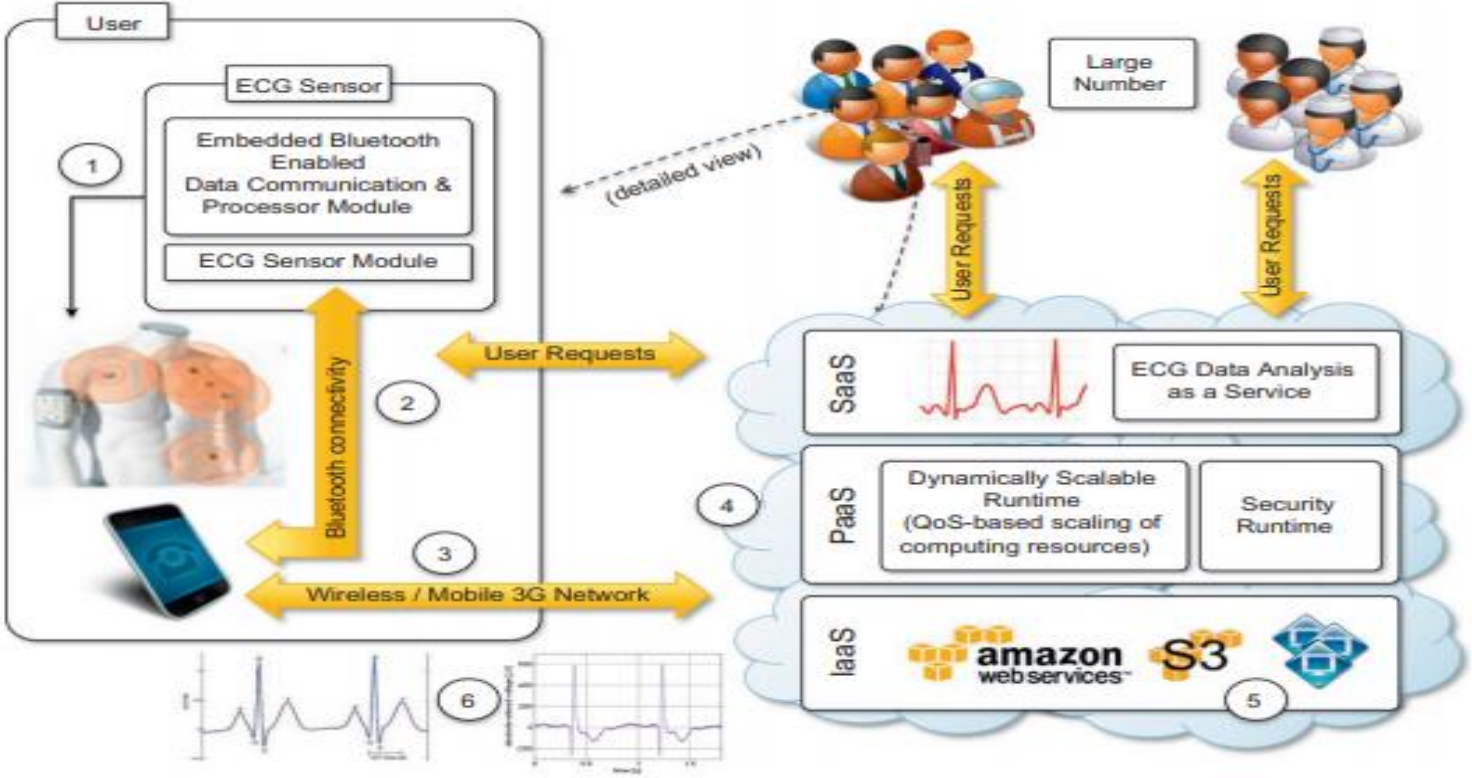
- Agriculture

- Geospatial Data

Health Sector

- **ECG data analysis and monitoring**
  - ECG waveform is used to identify arrhythmias and is the most common way to detect heart disease.
  - **Cloud computing technologies Supports**
    - ✓ Remote monitoring of a patient’s heartbeat.
    - ✓ Data analysis in minimal time.
    - ✓ notification of first-aid personnel and doctors

Health Sector



Health Sector

- Record medical history as well as current data, including health events, test results, medications.
- Communicate this data to health care providers.
- Online medical facilities.
- **Example**: Windows Azure as service provider, National Health Portal India, etc.

Education

Cloud-based storage

Virtual Hands-on Laboratories

Platform Services

Software Services

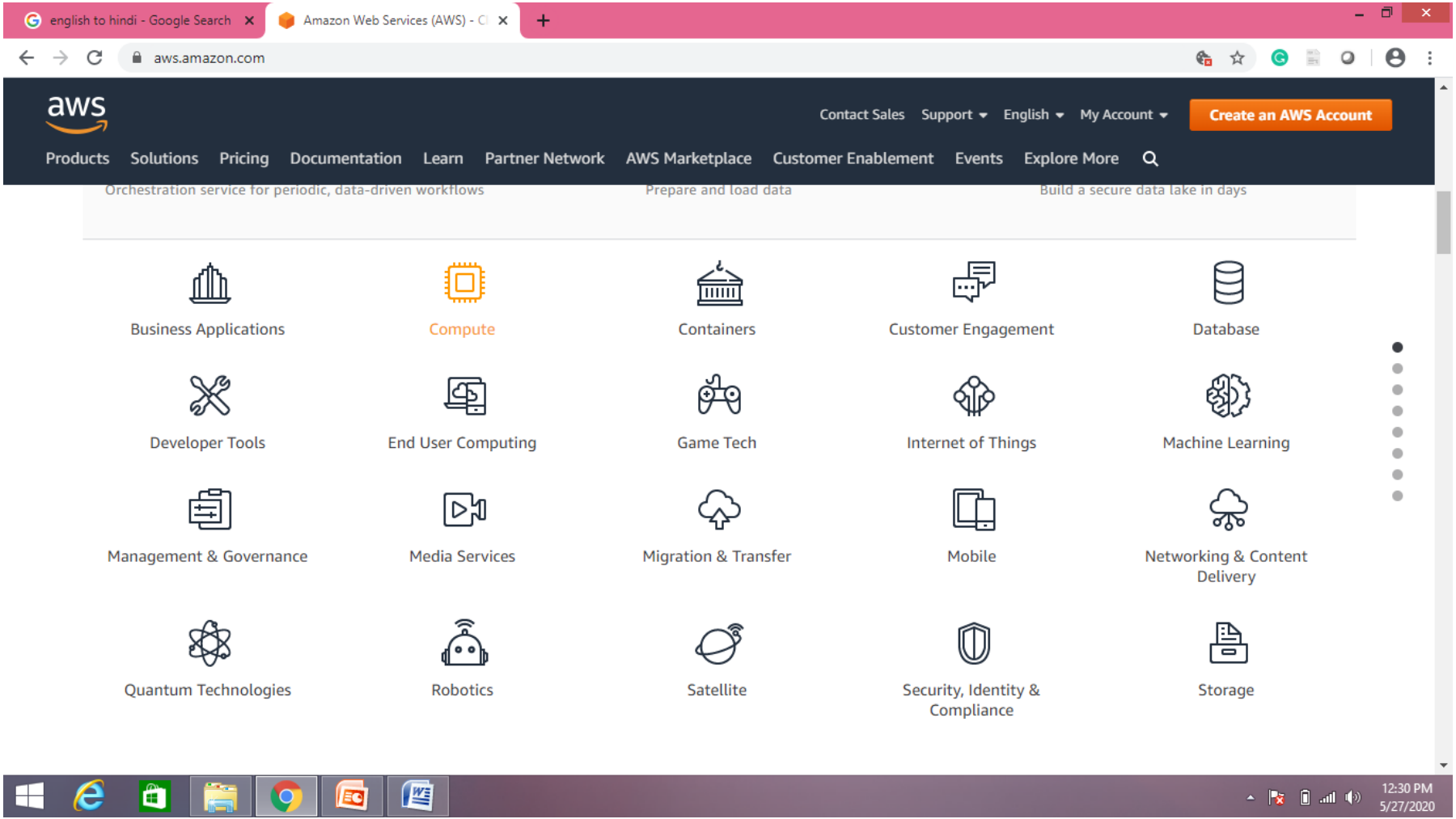
Cloud-Based Storage

- Facilitate collaboration among students by allowing them to work together on the **same shared documents**.

http://aws.amazon.com/s3/

http://www.clouddip.com/

http://www.dropbox.com/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Documentation
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Partner Network
AWS Marketplace
Customer Enablement
Events
Explore More
Orchestration service for periodic, data-driven workflows
Prepare and load data
Build a secure data lake in days
Business Applications
Compute
Containers
Customer Engagement
Database
Developer Tools
End User Computing
Game Tech
Internet of Things
Machine Learning
Management & Governance
Media Services
Migration & Transfer
Mobile
Networking & Content Delivery
Quantum Technologies
Robotics
Satellite
Security, Identity & Compliance
Storage
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Virtual Hands-on Laboratories

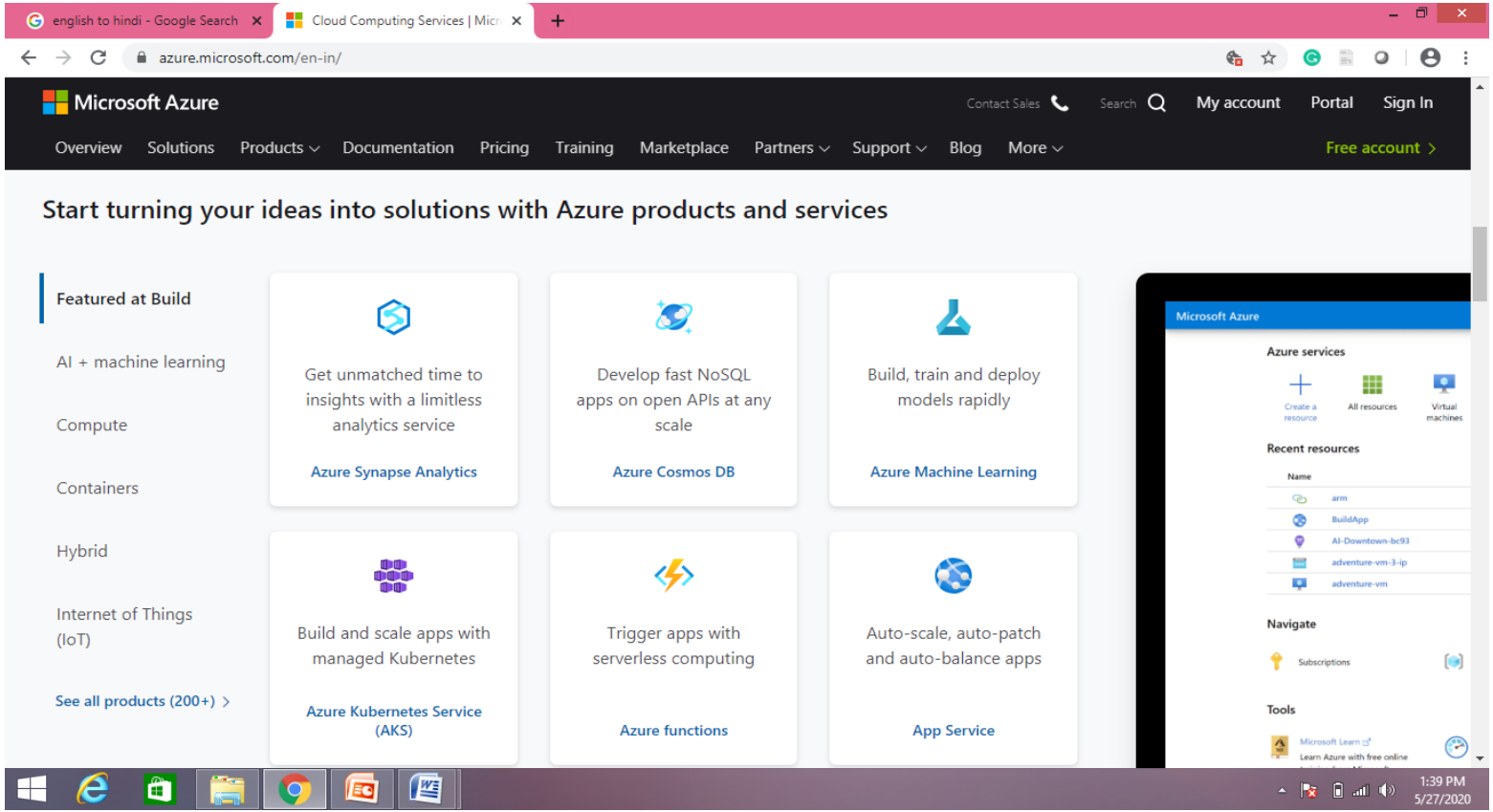
- Provide students with **realistic learning** environments.
- **Protecting** from undesirable and potentially **illegal interference**.
- A number of **VMs** are allocated to each students to test or execute a certain scenario.
- Programming courses use simulation tools to teach how to code.
- Web developer can test new features before adding to the live version of their product or website.

Software Services: Google APP Store

Platform Services

- Users are provided with a ***container environment*** to run/test their software components .
- The containers have all of the software installed and configured that are required for serving the users' purpose.
- Examples:
  - Microsoft Azure
  - Google App Engine

Platform Services: Azure



E- Governance

- Cloud computing permits to **uniformly** cover the **whole country** with e-government solutions
- Service-oriented architecture facilitates provision of **compound services.**
- High order of **customer order** processing, where a customer may be a citizen or an enterprise

E-Governance Types

- **Government to Government** (G2G) where information is exchanged within the government i.e. either, between the central government, state government and local governments or between different branches of the same government.
- **Government to Citizen** (G2C) where the citizens have a platform through which they can interact with the government and get access to the variety of public services offered by the Government.
- **Government to Businesses** (G2B) where businesses are able to interact with the government seamlessly with respect to the services of the government offered to businesses
- **Government to Employees** (G2E) where interaction between the government and its employees occurs in an efficient and speedy manner.
- **Example**: Digital India initiative, National Portal of India, Prime Minister of India portal, Aadhar, filing and payment of taxes online, digital land management systems, Common Entrance Test etc.

Agriculture

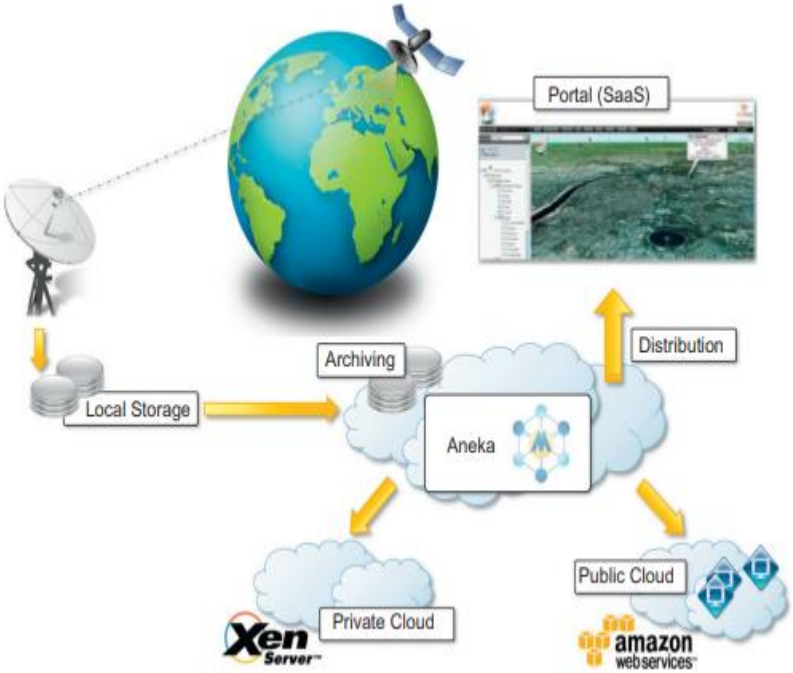
- Soil Information
- Farmers' Data
- Expert Consultation
- E-commerce
- Weather Information

GeoScience Data

- **Geoscience** applications collect, produce, and analyze massive amounts of imaginary data.
- Process such data is both I/O and compute-intensive task.
- **Cloud computing** is an attractive option for executing these demanding tasks and extracting meaningful information to support decision makers.

GeoScience Data

- **Cloud computing** provides the **appropriate infrastructure** to support such application scenarios.
- A **SaaS application** provides a collection of services for such tasks as **geocode generation and data visualization**.
- At the **PaaS level**, support for several **image-processing tasks** is provided.




Thank
You!