Software as a Service (SaaS)
Q: What makes SaaS different from **just** software?

(1):

(2):

(3):

> Much like all of the other things talked about in the cloud, SaaS is a model of software that is **independent of programming language** and **independent of architectural design.**

Q: What features differentiate **SaaS** from **PaaS**?

(1):

(2):

(3):

> Some software tools have characteristics of both SaaS and PaaS – these are general terms to understand the level of abstraction that you, as a developer, are working with or providing.

Large Categories of SaaS Software
- Human Resource Management (HRM)
- Customer Relationship Management (CRM)
- Enterprise Resource Planning (ERP)
- Content Management Systems (CMS)
- Billing Platforms
- Project Management
- Bookkeeping/Accounting
- Ecomerence
- Communication

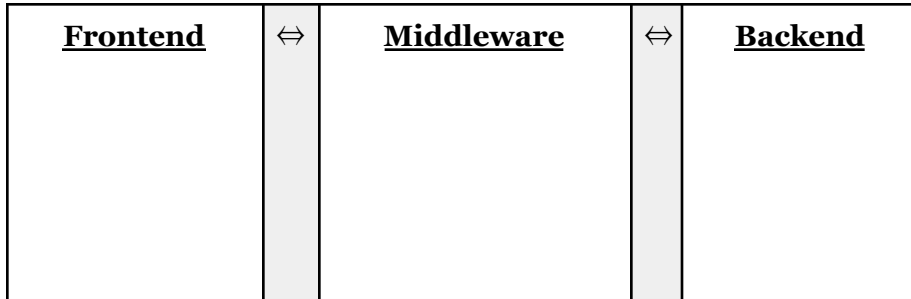## Examples of SaaS at Illinois

Advantages of SaaS

1)

2)

3)

4)

Legend:

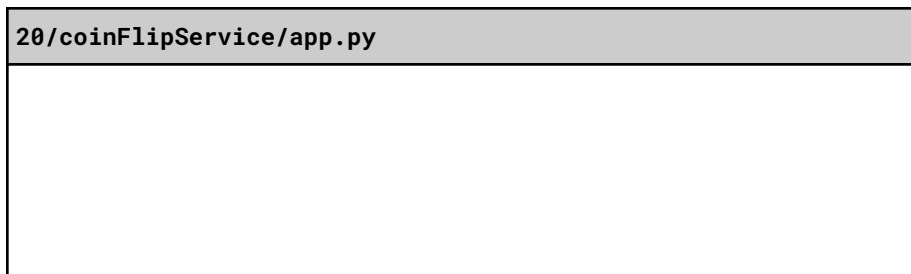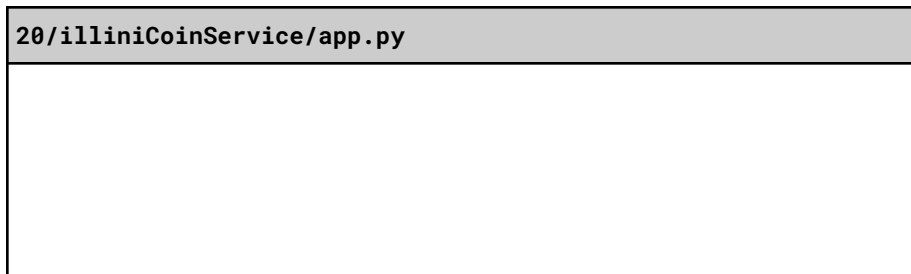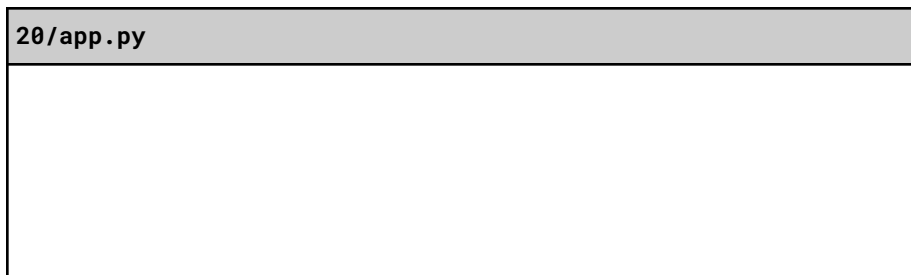|	Abstracted by Cloud Provider		Customer Managed Unit of Scale		Customer Managed

IaaS Infrastructure as a Service	CaaS Containers as a Service	PaaS Platform as a Service	FaaS Functions as a Service	SaaS Software as a Service
Data	Data	Data	Data	Data
Functions	Functions	Functions	Functions	Functions
Applications	Applications	Applications	Applications	Applications
Runtime	Runtime	Runtime	Runtime	Runtime
Containers*	Containers	Containers*	Containers*	Containers*
OS	OS	OS	OS	OS
Virtualization	Virtualization	Virtualization	Virtualization	Virtualization
Hardware	Hardware	Hardware	Hardware	Hardware

Architecture Layers of Software:

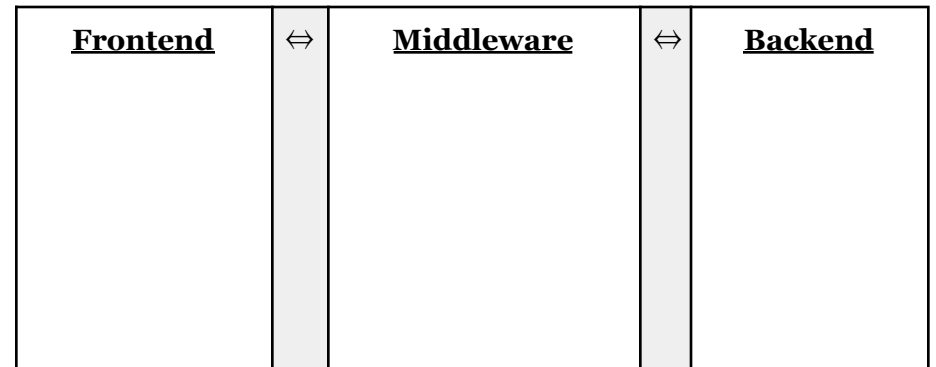**Q:** What **defines** each architectural layer of software?

Frontend	⇔	Middleware	⇔	Backend

Software Study: Illini CoinFlip!

`20/app.py`

`20/illiniCoinService/app.py`

`20/coinFlipService/app.py`

Software Architecture and Interaction Diagram

Concerns/Bottlenecks for each architectural layer:

Frontend	⇔	Middleware	⇔	Backend

Common Technologies:

Frontend	⇔	Middleware	⇔	Backend