EC2 Instance & AMI

When launched, remember permissions are by default deny-all. This means connecting via SSH (or otherwise) to access your instance will require a KeyPair.

```
chmod 400 keyname.pem
ssh -i /path/to/keyname.pem <username>@<ec2_ip_addr>
```

Keep in mind that <username> will differ by your instance type:

- Amazon AMI: ec2-user
- Ubuntu AMI: ubuntu
- Default: root

RDS Best Practices

1. Choose DB instance class carefully
2. Use Amazon EBS optimized instances
3. Use Provisioned IOPS for production
4. Use Multi-AZ for high availability
5. Use read replicas
    1. scaling needs
    2. cross-region replication
    3. additional failure recovery

CloudFront

1. **General**
    1. Separate CNAME for static content
        1. static content cached, dynamic content straight from origin
        2. most efficient
        3. more effort to setup and manage

2. Point entire URL to CloudFront
    1. easiest to manage
    2. use URL patterns to stage dynamic content
    3. ALL content goes through edge locations
2. **Features**
    1. Video streaming
        1. RTMP and HTTPS
        2. Adaptive bitrate live and VOD streaming (HLS, HDS, Smooth, MPEG-DASH)
    2. Security
        1. custom SSL
        2. Geo restriction
    3. Content management
    4. Price flexible
        1. pay for use
        2. price classes
        3. reserved capacity private pricing
    5. Dynamic content acceleration
        1. low TTL
        2. multiple cache behaviors
        3. Put/Post HTTP verb support
        4. multiple origin servers

Cloudwatch

1. Centralized metrics repository
    1. distributed stat gathering system
    2. metrics are seamlessly collected at hypervisor level
    3. custom metrics are generated by your own application services
2. Store and monitor app log files with CloudWatch logs
    1. route OS, app, and custom log files
    2. configure CloudWatch logs to:

1. monitor the incoming log entires for specific symbols or messages
2. archive log data
3. watch 404 errors for bad inbound links

3. Alarms (single metric performs one or more actions)
    1. Types
        1. Amazon Simple Notification Service (SNS)
        2. Auto scaling policies to config scaling action(s)
        3. Amazon EC2 Action to stop/terminate instances