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AWS Certified Cloud Practitioner

CLF-C02



AWS Certified Cloud Practitioner CLF-C02 Cert Guide

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- EC2: This is your virtual machine compute service in the cloud, available for 750 hours per month at this tier.
- **EFS:** The Elastic File Service of AWS provides scalable shared file storage services and 5 GB of total storage.
- Elastic Container Registry: This is a registry service for Docker images, available with 500 MB of storage per month.
- **Elastic Transcoder:** This is the AWS fully managed media transcoding service, with 20 minutes of audio transcoding.
- **ElastiCache:** This in-memory, cloud-based cache service is based on industry standard caching protocols and is available for 750 hours of single-node usage.
- **ELB:** The Elastic Load Balancing service of AWS can automatically distribute requests across multiple EC2 instances, with 750 hours per month shared between Classic and Application Load Balancers.
- GameLift: GameLift provides simple, fast, cost-effective dedicated game server hosting. The Free Tier comes with 125 hours per month of Amazon GameLift on-demand instance usage, plus 50 GB EBS general-purpose SSD storage.
- **HealthImaging:** This service assists clients in building cloud-native medical imaging applications, with 20 GB of storage.
- **Interactive Video Service:** This service provides easy setup of live, interactive video streams, with 100 hours of SD video output per month.
- **IoT Core:** This service seeks to connect your IoT devices to the cloud, allowing 500,000 messages published or delivered per month.
- **IoT Device Management:** This service helps you onboard, organize, monitor, and remotely manage your connected IoT devices, allowing 50 remote actions per month.
- **IoT Events:** This service seeks to simplify IoT message detection and response, with 2,500 message evaluations per month.
- **IoT Greengrass:** This service provides local compute, messaging, data caching, and sync capabilities for your IoT connected devices, allowing three connected devices for free.
- Lex: This service permits you to build voice and chat text chatbots, allowing 10,000 text requests per month.

- MQ: Amazon MQ is a managed message broker service for Apache ActiveMQ, and the Free Tier allows 750 hours of a single-instance broker per month.
- **OpenSearch:** This AWS managed service aims to simplify log analytics and real-time application monitoring, with 750 hours free per month.
- OpsWorks for Chef Automate: This cloud service provides configuration management with Chef Automate and Chef Server, available for 10 nodes per month.
- OpsWorks for Puppet Enterprise: This service provides configuration management in a Puppet Enterprise environment, available for 10 nodes per month.
- **Pinpoint:** Pinpoint enables targeted push notifications for mobile apps, with 5,000 free targeted users per month.
- **Polly:** This service turns text into speech, allowing 5 million characters per month.
- **RDS:** The relational database service of AWS is available for 750 hours per month of applicable database engine usage.
- **Rekognition:** This is a deep learning-based image recognition service, available for 5,000 images per month.
- **S3:** The Simple Storage Service of AWS provides object-based storage to an unlimited scale, with 5 GB of standard storage.
- **SES:** This is the cost-effective cloud-based email service provided by AWS, and it is available for 3,000 messages per month.
- **Transcribe:** This service can add speech-to-text capability to your applications with automatic speech recognition and is available for 60 minutes per month.
- **Translate:** This service provides fast, high-quality, and affordable neural machine translation for 2 million characters per month.

These services are included with a Free Tier account and will remain free for you after the 1 year is up:

- Application Discovery Service: This service collects server-specific information for network connections and is available for 1,000 applications per account.
- **Application Migration Service:** This service seeks to simplify and expedite application migrations, and use of this service is unlimited.

- **Chime:** This modern unified communications (UC) service offers meetings with high-quality audio and video. Use of Amazon Chime Basic is unlimited.
- **CloudFormation:** This service permits the creation of infrastructure from code for 1,000 handler operations per month.
- **CloudFront:** This service distributes content to ensure low-latency access to web-based resources, and you are allowed 1 TB of data transfer out.
- **CloudTrail:** This service permits the careful auditing of API calls and activities within AWS and can be used for one trail.
- CloudWatch: This service provides simple yet powerful monitoring capabilities for your cloud services in AWS, and you are allowed 10 custom metrics and 10 alarms.
- CodeArtifact: This service is a cloud-based artifact repository that assists in the storage and distribution of software packages, with 2 GB of storage available per month.
- **CodeBuild:** This service seeks to simplify the application building and delivery process in AWS, with 100 build minutes.
- CodeCatalyst: This fully managed service permits you to build and test your code in the cloud for 2,000 build minutes.
- **CodeCommit:** This highly scalable managed source control service allows five active users per month at this tier.
- **CodePipeline:** This is a continuous delivery service that permits fast and reliable delivery of application updates, with one active pipeline per month.
- Cognito: This service provides simple and secure sign-up and sign-in services as well as access control and is available for 50,000 monthly active users (MAUs) each month.
- **Control Tower:** This service assists in setting up multi-account AWS environments, with unlimited free access.
- **Data Exchange:** This service helps you find and use third-party data sets delivered by APIs, files, or Amazon Redshift tables and can be used with 1,600 data sets.
- **Database Migration Service:** This service seeks to make database migrations to or from the cloud very simple, allowing 750 hours of Amazon DMS single-instance usage.

- DynamoDB: This service provides fast and flexible NoSQL database access to any scale required, offering 25 GB of storage.
- Glue: This is a simple, flexible, and cost-effective extract, transform, and load (ETL) service, allowing 1 million objects to be stored in the AWS Glue Data Catalog.
- **Honeycode:** This service helps you build mobile and web applications with zero programming for 20 users.
- **Key Management Service:** This is a fully managed service that assists you with encryption key management, allowing 20,000 free requests per month.
- Lambda: This serverless compute service runs your code in response to events, allowing 1 million free requests per month.
- License Manager: This service allows you to set rules to discover and manage third-party license usage, and its usage is unlimited.
- Managed Service for Prometheus: This service works with Prometheus to provide monitoring and alerting for these containerized environments, offering 40 million metric samples.
- Migration Evaluator: This service helps customers rapidly see projected costs of running their on-premises solutions in the cloud, offering unlimited assessments.
- Migration Hub: This is a central location for gaining information about application migrations, with unlimited free usage.
- Organizations: This is a centrally managed billing and access control system for your AWS resources, with unlimited free usage.
- re:Post: This is a community-driven Q&A service that seeks to eliminate technical roadblocks for AWS customers, with unlimited free usage.
- **Resource Access Manager:** This service helps you securely share your resources across AWS accounts, with unlimited free usage.
- **Resource Explorer:** This service permits you to easily find your AWS resources across AWS regions, with unlimited free usage.
- **Route 53:** This is the highly available and scalable DNS service of AWS, allowing 1,000 IP CIDR blocks per month.
- **Security Hub:** This service automates AWS security checks and centralizes security alerts; it is available as an unlimited trial for 30 days.

- **Service Catalog:** This service permits you to create a catalog of IT services approved for use in your AWS cloud, with 1,000 API calls per month.
- SNS: The Simple Notification Service of AWS provides a fast and flexible messaging service for many potential application and service usages, allowing 1 million publishes.
- **SQS:** The Simple Queue Service of AWS provides scalable queueing for message storage between systems and is available for 1 million requests.
- **Step Functions:** This service seeks to coordinate components of distributed applications, allowing 4,000 state transitions per month.
- **Storage Gateway:** This service provides hybrid storage with local integration possible and optimized data transfers, with 100 GB free per account.
- **SWF:** The Simple Workflow Service of AWS can assist you with task coordination and state management services for your cloud applications, allowing 10,000 activity tasks.
- **Systems Manager:** This service allows you to centralize operational data from multiple AWS services, offering free use of 12 of the available features.
- WAF Bot Control: This service protects your web applications from common and preservice web bots, allowing 10 million bot control requests per month.
- Well-Architected Tool: This service reviews your architecture and helps you
 adopt well-architected best practices, with unlimited workload reviews.
- X-ray: This service helps analyze and debug your applications, allowing 100,000 traces to be recorded per month.

Lab: Creating Your Free Tier Account



If you do not already have a Free Tier account with AWS, it is time for you to create one. Follow these steps:

- **Step 1.** Search online for **AWS Free Tier**. Select the link from Amazon for the Free Tier account.
- **Step 2.** Click the **Create a Free Account** button, as shown in Figure 6-1.

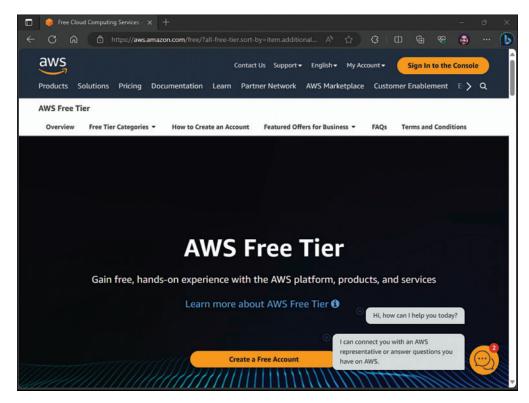


Figure 6-1 The Create a Free Account Button

- Step 3. On the Sign Up for AWS page (shown in Figure 6-2), provide your root user email address and your AWS account name. The root user email address is critical and will be the username entry when you log in to this all-powerful root account. You should select an email address that you will have uninterrupted access to for the foreseeable future. The account name is how your account will display in AWS. This is not nearly as critical and can be changed at any time. When you have completed the two fields, click the Verify Email Address button.
- **Step 4.** Enter your verification code that was emailed to your root account email address you provided in Step 3. Click **Verify**.
- Step 5. Enter and confirm the root user password and click Continue (step 1 of 5).
- Step 6. Choose Business or Personal for your account and fill in your basic contact information. Click Continue (step 2 of 5).