

AWS:

1. data source:

AWS Step Function:

benefit: build and update apps quickly, improve resiliency, write less code.

Cost: 4,000 state transition for free and \$0.025 per 1,000 after that.

AWS AppSync:

Benefit: start effortlessly, scale with your business, Real-time subscriptions and offline access, unify and secure access to your distributed data.

Cost: \$4.00 per million Query and Data Modification Operations, (250,000 for free)

\$2.00 per million Real-time updates, (250,000 for free)

\$0.08 per million minutes connection to the AWS AppSync Service. (600,000 for free)

Amazon S3 (Amazon Simple Storage Service):

cost:

S3 Standard Storage

First 50 TB / Month	\$0.024 per GB
Next 450 TB / Month	\$0.023 per GB
Over 500 TB / Month	\$0.022 per GB

2. Advertising:

SNS (AWS simple notification service):

Benefit: help us publish our app based on how much we pay.

Cost:

Notification deliveries

Endpoint Type	Free Tier	Price
Mobile Push Notifications	1 million	\$0.50 per million
Worldwide SMS	100	Learn more
email/email-JSON	1,000	\$2.00 per 100,000
HTTP/s	100,000	\$0.60 per million
Simple Queue Service (SQS)	No charge for deliveries to SQS Queues. Normal SQS pricing applies.	
Lambda functions	No charge for deliveries to Lambda. Normal Lambda pricing applies.	

3. Android application:

each of these applications for android apps need to be set up from the website via github.

Firestore:

1. Android application: an introduction about adding firestore to Android project.
<https://firebase.google.com/docs/android/setup?authuser=0>

2. Advantages:

each of its function has teaching videos and docs to make it easy to start.

Cloud Storage is designed to help you quickly and easily store and serve user-generated content, such as photos and videos.

Provides An end-to-end identity solution, supporting email and password accounts, phone auth, and Google, Twitter, Facebook, and GitHub login, and more.

Provides free advertising.

3. Cost:

we can start with spark plan for free. Nearly all of its service have a free amount. If we need some extra amounts, we can pay as we go from spark plan to blaze plan. We also have a blaze plan calculator (<https://firebase.google.com/pricing#blaze-calculator>) to know how much we need to pay.

The pay for storage for spark plan, flame plan and blaze plan respectively.

Storage ?			
GB stored	5 GB	50 GB	\$0.026/GB
GB downloaded	1 GB/day	50 GB/day	\$0.12/GB
Upload operations	20K/day	100K/day	\$0.05/10k
Download operations	50K/day	250K/day	\$0.004/10k

Microsoft Azure:

1. Android:

Provide a good start introduction.

<https://docs.microsoft.com/en-us/azure/app-service-mobile/app-service-mobile-android-get-started>

2. Advantages:

Build engaging mobile apps fast;

Authenticate your customers with Azure Active Directory; more securely connect to on-premises resources like SAP, Oracle, SQL Server, and SharePoint;

customers can create and modify data when they're offline;

With Azure Hybrid Connections and VPN, it's easy to access your data more securely from your on-premises data centers from anywhere in the world.

3. Cost:

	FREE Try for free	SHARED Environment for dev/test	BASIC Dedicated environment for dev/test	STANDARD Run production workloads
Web, mobile, or API apps	10	100	Unlimited	Unlimited
Disk space	1 GB	1 GB	10 GB	50 GB
Maximum instances	–	–	Up to 3	Up to 10
Custom domain	–	Supported	Supported	Supported
Auto Scale	–	–	–	Supported
VPN hybrid connectivity	–	–	–	Supported
Network Isolation				
Price per hour	Free	£0.010	£0.071	£0.094