**Details of the cost**

**Key Considerations for Cost Estimation:**

Since CloudTech Solutions is a small company with only 16 employees and a clientele of 21 even smaller companies, they don’t need a lot of computing power, storage, and resources. Moderate computing power and storage are sufficient for their work. We have also assumed the workload includes web hosting, databases, application servers, and file storage. We also must ensure high availability and regular backups for business continuity.

The estimated cost of migrating from on-premises infrastructure to cloud services, CloudTech Solutions must pay the following amounts as discussed below:

**EC2 Instances:**

Amazon Elastic Compute Cloud is a web service that provides secure, resizable compute capacity in the cloud. AWS offers the broadest and deepest compute platform, with over 750 instances and a choice of the latest processor, storage, networking, operating system, and purchase model to help match the needs of its users (**Amazon Web Services, n.d.).**

EC2 instances can be broken down for different requirements

**Web Servers:** The instance type for web servers should be 2 instances running on t3.medium to handle web traffic for client websites. Its monthly cost is around USD 60.74, and its yearly cost is USD 728.88, as seen in Figure 4.

A screenshot of a computer

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**Figure 4: EC2 cost for web servers**

**Application Servers:** The instance type for web servers should be 2 instances running on t3.large to run applications and backend services. Its monthly cost is around USD 60.30, and its yearly cost is USD 723.60, as seen in Figure 5.

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**Figure 5: EC2 cost for application servers**

**Database Servers:** The instance type for database servers should be 2 instances, one for primary and one for failure, running on t3.medium to store and manage client-sensitive data. Its monthly cost is around USD 30.08, and its yearly cost is USD 360.96 as seen in Figure 6.

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**Figure 6: EC2 cost for database servers**

**File Storage:** The instance type for file storage should be 1 instance running on t3.medium to store files, media, and backups. Its monthly cost is around USD 15.04, and its yearly cost is USD 180.48, as seen in Figure 7.

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**Figure 7: EC2 cost for file storage**

**Development and Testing:** The instance type for code development and testing should be 2 instances running on t3.small for development, testing, staging, and production environments. Its monthly cost is around USD 15.04, and its yearly cost is USD 180.48, as seen in Figure 8.

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**Figure 8: EC2 cost for development and testing**

**Backup & Maintenance:** The instance type for backup & maintenance should be 1 instance running on t3.small for handling backups and maintenance tasks. Its monthly cost is around USD 7.52, and its yearly cost is USD 90.24, as seen in Figure 9.

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**Figure 9: EC2 cost for backup & maintenance**

**Elastic Load Balancer:** The elastic load balancer is used to distribute the traffic across web servers and applications. Its monthly cost is around USD 74.83, and its yearly cost is USD 897.96, as seen in Figure 10.

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**Figure 10: Elastic Load Balancer cost for distributing traffic**

**AWS RDS (Relational Database Service):**

Amazon Relational Database Service is a collection of managed services that makes it simple to set up, operate, and scale databases in the cloud (**Amazon Web Services, n.d.).**

RDS can be broken down for different requirements:

**Production Database:** We are using 2 instances running on db.m5.large which can handle both general workloads and intensive applications at the same time and to ensure high availability. Its monthly cost is around USD 2420.32, and its yearly cost is USD 29043.84 as seen in Figure 11.

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**Figure 11: EC2 cost for production database**

**Development and testing Databases:** We are using 1 instance running on db.t3.medium for lightweight development and testing purposes. Its monthly cost is around USD 61.14, and its yearly cost is USD 733.68 as seen in Figure 12.

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**Figure 12: EC2 cost for Development and Testing database**

**Backup and Maintenance:** We are using 1 instance running on db.t3.medium for lightweight development and testing purposes. Its monthly cost is around USD 61.14, and its yearly cost is USD 733.68 as seen in Figure 13.

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**Figure 12: EC2 cost for Backup and Maintenance**

After going through the above two services, the monthly cost comes to **USD 2806.15,** and the yearly cost comes to **USD 33673.80.**