Creating a cost estimate for this Azure migration requires a detailed look at each component in your architecture. Here’s a breakdown of the main components, their expected usage, and the Azure services associated with them.

To calculate costs accurately, I’ll go over each key service with typical monthly usage assumptions. Please adjust these estimates based on your specific needs and usage levels.

1. Azure App Services (API Apps & Web App)

• API Apps (Two apps for document scanning and classification)

• Web App for user interaction

• SKU: Standard or Premium tier, depending on expected traffic and need for high availability. Premium Plan includes features like scaling across multiple instances.

• Estimated Cost: For each App Service Plan (Standard B1 or Premium P1), it could range from:

• Standard Plan: Around $75/month per instance.

• Premium Plan: Around $225/month per instance.

Assuming you might use 2–3 instances for scalability, the cost could range between $150–$675 per month.

2. Azure SQL Database

• Used for storing extracted data and metadata.

• SKU: Business Critical (for high availability) or General Purpose.

• Estimated Cost:

• General Purpose DTU-based: ~$200/month for moderate usage.

• Business Critical: Starts at around $750–$1,000/month for high-availability configurations with geo-replication.

Total estimated cost: $200–$1,000 per month depending on availability and redundancy requirements.

3. Azure Blob Storage

• Used for storing PDF/TIFF files uploaded by users.

• Redundancy: Geo-Redundant Storage (RA-GRS) or Locally Redundant Storage (LRS).

• Estimated Storage Cost:

• Storage: ~$0.018/GB for LRS, ~$0.046/GB for RA-GRS.

• For example, storing 1 TB of data would cost around $46/month with RA-GRS.

• Data Transfer: Additional charges if data egress is high, such as $0.087/GB for outbound transfers.

Total Estimated Cost: $50–$100 per month for typical usage with moderate redundancy.

4. Azure Cognitive Services (OCR)

• Used for OCR, contour detection, QR code recognition.

• Cost: Charged based on number of pages processed. OCR via Cognitive Services is around $1.50 per 1,000 pages.

Assuming you process 100,000 pages per month, OCR costs could be around $150/month.

5. Azure Machine Learning and Model Scoring

• Used for ML model training and scoring (e.g., CNN classification).

• Cost:

• Basic machine learning compute instance could be around $0.10–$1 per hour depending on VM type.

• For training and periodic model updates, this could average around $300–$1,000/month.

Total Estimated Cost: $300–$1,000/month depending on model complexity and usage.

6. Azure Cache for Redis (Caching)

• Used to store frequently accessed metadata or processed data to reduce load on SQL Database.

• Standard C1 Cache: Starts around $41/month and scales based on memory and replication needs.

Estimated Cost: $50–$100 per month depending on usage.

7. Azure Front Door and Web Application Firewall (WAF)

• Used for load balancing and web application security.

• Cost:

• Azure Front Door: Starts at ~$35/month for basic configurations.

• Web Application Firewall: Around $20–$30 per million requests.

Estimated Cost: $50–$150 per month depending on request volume.

8. Azure Key Vault

• Used for storing API keys, connection strings, and other secrets.

• Cost:

• Key Vault Standard: ~$0.03 per 10,000 operations.

For moderate usage, $10–$20 per month should suffice.

9. Monitoring & Logging (Azure Monitor, Log Analytics, Application Insights)

• Logs and monitors performance, health, and security metrics.

• Cost:

• Azure Monitor: ~$2.76 per GB of data ingested.

• Application Insights: Around $2.30/GB.

For moderate logging and monitoring (e.g., 50 GB of logs), $100–$150 per month.

Total Monthly Cost Estimate

Adding up these services, here’s a rough monthly cost estimate:

Service Estimated Monthly Cost

Azure App Services (API & Web App) $150 – $675

Azure SQL Database $200 – $1,000

Azure Blob Storage $50 – $100

Azure Cognitive Services (OCR) $150

Azure Machine Learning $300 – $1,000

Azure Cache for Redis $50 – $100

Azure Front Door + WAF $50 – $150

Azure Key Vault $10 – $20

Monitoring & Logging $100 – $150

Total Estimated Monthly Cost $1,060 – $3,345

Additional Considerations

• Data Egress Costs: If significant data is transferred out of Azure (e.g., to a different region or on-premises), there may be additional egress charges.

• Scaling Needs: Costs can increase with traffic volume, database usage, and ML model complexity.

• Testing and Development Environments: Plan for additional environments if needed.

Azure Pricing Calculator

For a precise calculation based on your specific anticipated usage, the [Azure Pricing Calculator](https://azure.microsoft.com/en-us/pricing/calculator/) allows you to tailor each service, configure SKUs, and enter usage estimates.

Let me know if you need a further breakdown on any specific component or if there are custom usage patterns you’d like to explore!