

-	Running	-
Hostname type IP name: ip-12-0-1-116.ap-south-1.compute.internal	Private IP DNS name (IPv4 only) ip-12-0-1-116.ap-south-1.compute.internal	
Answer private resource DNS name -	Instance type t3.micro	Elastic IP addresses -
Auto-assigned IP address 3.110.86.107 [Public IP]	VPC ID vpc-0785802b6e43d05b8 (myvpc01)	AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations. Learn more
IAM Role ses_for_ec2	Subnet ID subnet-04e5dfd86e9d7794b (public-subnet-01)	Auto Scaling Group name -
IMDSv2 Required	Instance ARN arn:aws:ec2:ap-south-1:521805124222:instance/i-0407e5ff363501605a	Managed false

```

=> [alert-service 3/6] RUN pip install --no-cache-dir boto3 15.2s
=> [stress-generator] exporting to image 0.4s
=> exporting layers 0.4s
=> writing image sha256:214ff335c507ddfa6d946099ebaf399376fcd8b20ae2b55c1b7eb61708b7f56 0.0s
=> naming to docker.io/library/assignment1-stress-generator 0.0s
=> [stress-generator] resolving provenance for metadata file 0.0s
=> [alert-service 4/6] RUN mkdir -p /var/log 0.4s
=> [alert-service 5/6] COPY alert-service.py /app/ 0.1s
=> [alert-service 6/6] RUN useradd -m -s /bin/bash alertuser && chown -R alertuser:alertuser /app 0.5s
=> [alert-service] exporting to image 1.3s
=> exporting layers 1.2s
=> writing image sha256:88871bb491674ea5aba0bac8c66700dd5dfalda00525edc975bcd659708d140 0.0s
=> naming to docker.io/library/assignment1-alert-service 0.0s
=> [webapp 3/6] WORKDIR /app 0.1s
=> [alert-service] resolving provenance for metadata file 0.0s
=> [webapp 4/6] COPY requirements.txt . 0.0s
=> [webapp 5/6] RUN pip install --no-cache-dir -r requirements.txt 5.4s
=> [webapp 6/6] COPY app.py . 0.1s
=> [webapp] exporting to image 0.8s
=> exporting layers 0.7s
=> writing image sha256:eb28b2b1e036301300bfa807a85cd39f08cc0952cbf5237e32112241a32a659 0.0s
=> naming to docker.io/library/assignment1-webapp 0.0s
=> [webapp] resolving provenance for metadata file 0.0s
=> [monitor 3/9] RUN pip install Flask 5.0s
=> [monitor 4/9] WORKDIR /app 0.1s
=> [monitor 5/9] COPY dashboard.py /app/dashboard.py 0.0s
=> [monitor 6/9] COPY monitor_container.sh /app/monitor_container.sh 0.1s
=> [monitor 7/9] COPY start_monitor.sh /app/start_monitor.sh 0.1s
=> [monitor 8/9] RUN chmod +x /app/monitor_container.sh /app/dashboard.py /app/start_monitor.sh 0.3s
=> [monitor 9/9] RUN mkdir -p /var/log 0.2s
=> [monitor] exporting to image 3.4s
=> exporting layers 3.4s
=> writing image sha256:269fcf21b47a9b0045efc8f913accbb6171cb35b2ac83db90e126e9b3f165ad5 0.0s
=> naming to docker.io/library/assignment1-monitor 0.0s
=> [monitor] resolving provenance for metadata file 0.0s
[+] Running 12/11
✔ assignment1-webapp Built 0.0s
✔ assignment1-stress-generator Built 0.0s
✔ assignment1-alert-service Built 0.0s
✔ Network assignment1_app-network Created 0.1s
✔ Volume assignment1_postgres_data Created 0.0s
✔ Container db Healthy 11.2s
✔ Container flask-app Healthy 41.8s
✔ Container app-monitor Started 42.1s
✔ Container assignment1-stress-generator-1 Started 42.1s
✔ Container alert-service Started 42.3s
ubuntu@ip-172-31-47-138:~/Bootcamp/Class5_Docker-Compose/assignment/Assignment1$ |

```

Program Execution

docker compose up -d - --build

```

[+] Running 10/10
✔ project_container_monitoring-monitor Built
✔ project_container_monitoring-alert-service Built
✔ project_container_monitoring-webapp Built
✔ project_container_monitoring-stress-generator Built
✔ Network project_container_monitoring_app-network Created
✔ Container db Healthy
✔ Container flask-app Healthy
✔ Container app-monitor Started
✔ Container project_container_monitoring-stress-generator-1 Started
✔ Container alert-service Started

```

Program Output

Flask App Output (Port: 8080)

High-Performance Monitored Application

Memory Cache Size 0 entries	Computation Results 6 stored	Background Tasks 3 running	Database Records 97176 total
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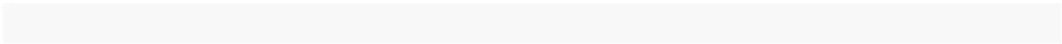
Stress Test Controls

Run CPU Test

Run Memory Test

Run Database Test

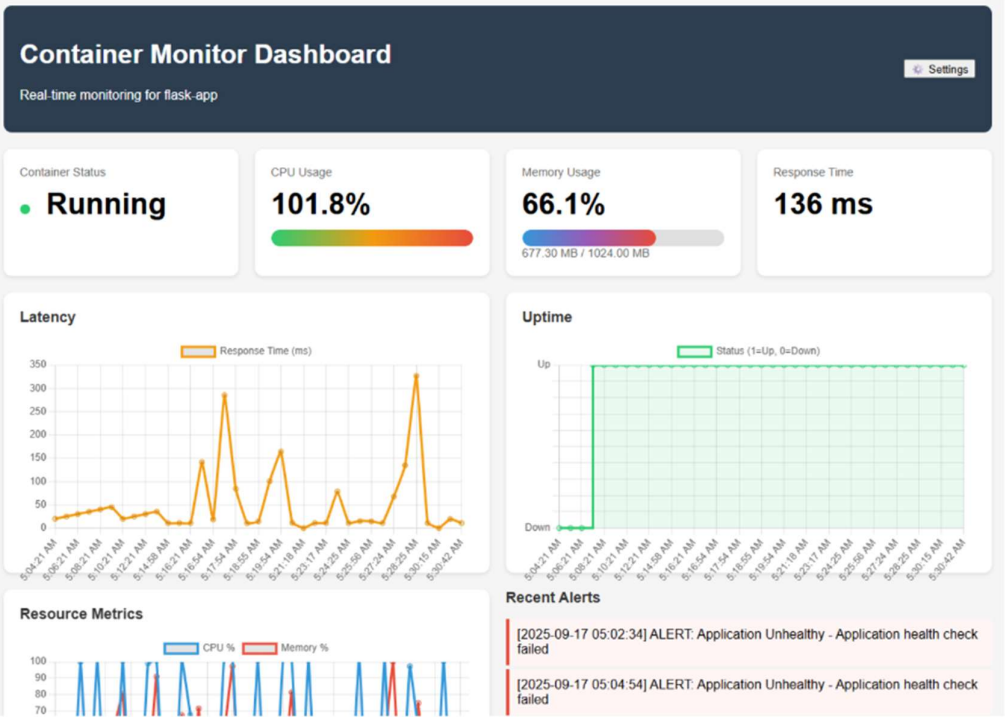
Run Combined Test




Available Endpoints:

- / - Main dashboard
- /health - Health check
- /api/stats - System statistics
- /api/cpu-intensive - CPU intensive task
- /api/memory-intensive - Memory intensive task
- /api/database-intensive - Database intensive task

Monitoring App Output (Port: 8001)



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CRITICAL: flask-app Alert

Inbox x

hemharsh87@gmail.com

via amazonses.com

3:57 PM (42 minutes ago)

☆

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⋮

to me

▼

Container Monitoring Alert Summary

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Time: 2025-09-26 10:27:05

Container: flask-app

Alerts Detected:

Application Unhealthy (70 occurrences):

- [2025-09-26 10:16:09] Application health check failed
- [2025-09-26 10:16:50] Application health check failed
- [2025-09-26 10:20:59] Application health check failed
- [2025-09-26 10:22:37] Application health check failed
- [2025-09-26 10:23:24] Application health check failed