1. The Docker creation, ECR, Amazon ECS cluster, task definition and AWS Fargate service definition is done in earlier paper. Here only the steps for creating AWS CloudFormation tasks are defined.

2. AWS S3 creation with bucket

3. AWS Lambda creation

4. AWS IAM roles

5. AWS EventBridge Schedule

   Add EventBridge schedule for Start

Occurrence | Info
You can define an one-time or recurrent schedule.

○ One-time schedule   ● Recurring schedule

Time zone
The time zone for the schedule.

(UTC+01:00) Europe/London ▼

Schedule type
Choose the schedule type that best meets your needs.

● Cron-based schedule
A schedule set using a cron expression that runs at a specific time, such as 8:00 a.m. PST on the first Monday of every month.

○ Rate-based schedule
A schedule that runs at a regular rate, such as every 10 minutes.

Cron expression | Info
Define the cron expression for the schedule

🗗 Copy   ✕ Clear

cron (00   08   ?   *   1-5   2024   )
       Minutes   Hours   Day of month Month   Day of the Year
                                                  week

Next 10 trigger dates
Date and time are displayed in your current time zone in UTC format, e.g. "Wed, Nov 9, 2022 09:00 (UTC - 08:00)" for Pacific time

Sun, 22 Sep 2024 08:00:00 (UTC+01:00)
Mon, 23 Sep 2024 08:00:00 (UTC+01:00)
Tue, 24 Sep 2024 08:00:00 (UTC+01:00)
Wed, 25 Sep 2024 08:00:00 (UTC+01:00)
Thu, 26 Sep 2024 08:00:00 (UTC+01:00)
Sun, 29 Sep 2024 08:00:00 (UTC+01:00)
Mon, 30 Sep 2024 08:00:00 (UTC+01:00)
Tue, 01 Oct 2024 08:00:00 (UTC+01:00)
Wed, 02 Oct 2024 08:00:00 (UTC+01:00)

6. Add Stop schedule for Amazon EventBridge schedule

Occurrence Info
You can define an one-time or recurrent schedule.

○ One-time schedule   ● Recurring schedule

Time zone
The time zone for the schedule.

(UTC+01:00) Europe/London   ▼

Schedule type
Choose the schedule type that best meets your needs.

● Cron-based schedule
A schedule set using a cron expression that runs at a specific time, such as 8:00 a.m. PST on the first Monday of every month.

○ Rate-based schedule
A schedule that runs at a regular rate, such as every 10 minutes.

Cron expression Info
Define the cron expression for the schedule   📋 Copy ✕ Clear

cron (| 30 | | 17 | | ? | | * | | 1-5 | | 2024 |)
         Minutes   Hours   Day of month Month Day of the   Year
                                                 week

Next 10 trigger dates
Date and time are displayed in your current time zone in UTC format, e.g. "Wed, Nov 9, 2022 09:00 (UTC - 08:00)" for Pacific time

Thu, 19 Sep 2024 17:30:00 (UTC+01:00)
Sun, 22 Sep 2024 17:30:00 (UTC+01:00)
Mon, 23 Sep 2024 17:30:00 (UTC+01:00)
Tue, 24 Sep 2024 17:30:00 (UTC+01:00)
Wed, 25 Sep 2024 17:30:00 (UTC+01:00)
Thu, 26 Sep 2024 17:30:00 (UTC+01:00)
Sun, 29 Sep 2024 17:30:00 (UTC+01:00)
Mon, 30 Sep 2024 17:30:00 (UTC+01:00)
Tue, 01 Oct 2024 17:30:00 (UTC+01:00)
Wed, 02 Oct 2024 17:30:00 (UTC+01:00)

7. The PayLoad for passing the values for Amazon EventBridge schedule

Lambda function

CloudFromationScheduler   ▼   ↻   Create new Lambda function ⬈

▶ Configure version/alias

Payload
The JSON that you want to provide to your Lambda function as input. For example, --payload '{ key: value }'. Learn more ⬈

```
 1  {
 2    "environment": {
 3      "variables": {
 4        "environment": "dev",
 5        "exclusionList": "item1,item2,item3",
 6        "clusterName": "ReportFargateSpotCluster2",
 7        "action": "Start"
 8      }
 9    }
10  }
```

6. Amazon ECS Service creation through AWS Cloudformation stack

CFHelloServiceUAT

Delete | Update | Stack actions ▼ | Create stack ▼

Stack info | Events | Resources | Outputs | Parameters | Template | Change sets | Git sync

Events (3)

Detect root cause | ↻

🔍 Search events

Timestamp	Logical ID	Status	Detailed status	Status reason
2024-09-23 20:43:04 UTC+0100	ECSService	ⓘ CREATE_IN_PROGRESS	-	Resource creation Initiated
2024-09-23 20:43:02 UTC+0100	ECSService	ⓘ CREATE_IN_PROGRESS	-	-
2024-09-23 20:42:59 UTC+0100	CFHelloServiceUAT	ⓘ CREATE_IN_PROGRESS	-	User Initiated

Services | Tasks | Infrastructure | Metrics | Scheduled tasks | Tags

Services (1) Info

↻ | Manage tags | Update | Delete service | **Create**

🔍 Filter services by value

Filter launch type: Any launch type ▼

Filter service type: Any service type ▼

< 1 > ⚙

☐	Service name ▲	ARN	Status	Service t... ▼	Deployments and tasks	Last deploy... ▼	Task de... ▼
☐	HelloServiceUAT	🗐 arn:aws:ecs:us-east-1:820242904...	⊘ Active	REPLICA	▓▓▓▓▓▓ 1/1 Tasks running	⊙ In progress	HelloServic...

CFHelloServiceUAT

Delete | Update | Stack actions ▼ | Create stack ▼

Stack info | Events | Resources | Outputs | Parameters | Template | Change sets | Git sync

Events (6)

Detect root cause | ↻

🔍 Search events

Timestamp	Logical ID	Status	Detailed status	Status reason
2024-09-23 20:45:03 UTC+0100	ECSService	ⓘ DELETE_IN_PROGRESS	-	-

Services | Tasks | Infrastructure | Metrics | Scheduled tasks | Tags

Tasks (2)

↻ | Manage tags | Stop ▼ | **Run new task**

🔍 Filter tasks by property or value

Filter desired status: Stopped ▼

Filter launch type: Any launch type ▼

< 1 > ⚙

☐	Task	Last status	Desired st... ▼	Task definition ▼	Health sta... ▼	Started at ▼	Container ins
☐	9f7f6d8ec9c94e09b38c3e60e4be8a55	⚠ Deprovisioning	⊖ Stopped	HelloServiceFargate:2	ⓘ Unknown	1 minute ago	-
☐	adea26a987024845bd949e4e75539835	⚠ Stopped | Essential container in task exited	⊖ Stopped	HelloServiceFargate:2	ⓘ Unknown	3 minutes ago	-