PROBLEM SET3:-

For scheduling periodic tasks like downloading a list of ISINs every 24 hours I prefer using **Celery** with **RabbitMQ** or **Redis** as the message broker.

I have choosen it because

1. **In terms of Reliability**: Celery is a robust task queue that can handle retries, failures, and complex workflows. It ensures that tasks are executed even if they fail initially..It makes this reliable .
2. **In terms of Scalability**: Celery is designed to scale. It can distribute tasks across multiple worker processes or machines and this making it suitable for handling high loads and scalable.

**Problems at Scale**:

**1)**Managing a large number of workers can be resource-intensive. Ensuring that the infrastructure is properly scaled and optimized is essential.

**2)**Celery requires robust monitoring and logging to track task performance and identify bottlenecks or failures.

For Fixing the problem at scale in production..the below points can be a solutions..

**1)** For real-time monitoring of Celery tasks.

**2)**Tune the number of workers and concurrency settings based on the workload.

**3)** Better management of task execution order and resource utilization.

**4)B**etter fault tolerance and scalability, consider using distributed brokers like RabbitMQ or Redis Cluster.