KAUNO TECHNOLOGIJOS UNIVERSITETAS

INFORMATIKOS FAKULTETAS

P175B120 Paslaugų programavimas debesų kompiuterijoje
Labaratorinis darbas

Darbą atliko:

IFK-1 gr. studentas

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|			Running (5/5)	89.94%		0 seconds ago	■	⋮	🗑
	studentsapi-1 3d7a115b2dcc	studentsapi	Running	0%	5082:8080 ↗	0 seconds ago	■	⋮	🗑
	coursesapi-1 07bae50de4fc	coursesapi	Running	0%	5081:8080 ↗	3 seconds ago	■	⋮	🗑
	sqldata-1 3fa691cb3cf2	mcr.microsoft.	Running	0.68%	1433:1433 ↗	14 seconds ago	■	⋮	🗑
	rabbitmq 642dfa9e3030	rabbitmq:3-ma	Running	89.25%	15672:15672 ↗ Show all ports (2	14 seconds ago	■	⋮	🗑
	apigateway-1 189bfb13202b	apigateway	Running	0.01%	5083:8080 ↗	15 seconds ago	■	⋮	🗑

1 pav. Paleisti docker konteineriai


```
version: '3.4'
services:
  rabbitmq:
    image: rabbitmq:3-management
    container_name: 'rabbitmq'
  sqldata:
    image: mcr.microsoft.com/mssql/server:2019-latest
  coursesapi:
    image: ${DOCKER_REGISTRY-}coursesapi
    build:
      context: .
      dockerfile: CoursesAPI/Dockerfile
    depends_on:
      - sqldata
      - rabbitmq
  studentsapi:
    image: ${DOCKER_REGISTRY-}studentsapi
    build:
      context: .
      dockerfile: StudentsAPI/Dockerfile
    depends_on:
      - sqldata
      - rabbitmq
  apigateway:
    image: ${DOCKER_REGISTRY-}apigateway
    build:
      context: .
      dockerfile: ApiGateway/Dockerfile
```

2 pav. Docker compose file'as
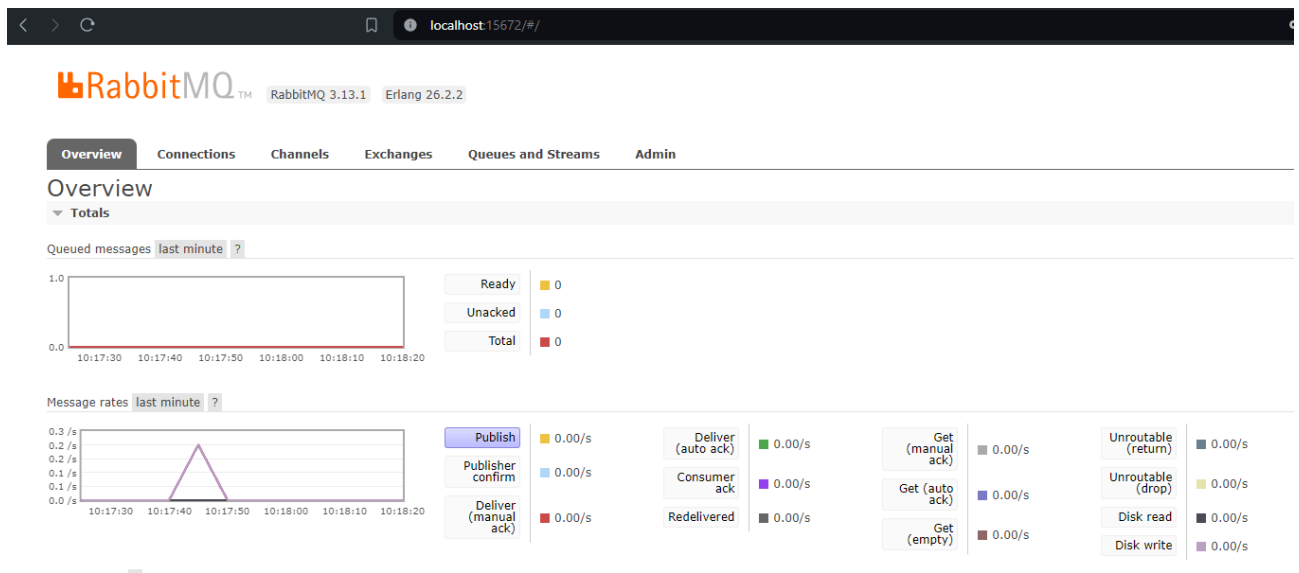
```yaml
version: '3.4'
services:
  coursesapi:
    environment:
      - ASPNETCORE_ENVIRONMENT=Development
      - ConnectionStrings__CoursesAPIContext=Server=sqldata;Database=CoursesDB;User Id=sa;Password=My!P@ssw0rd1;Encrypt=False
      - MessageBroker__Host=amqp://armzaj:Slaptazodis!1@rabbitmq:5672
    ports:
      - "5081:8080"
  studentsapi:
    environment:
      - ASPNETCORE_ENVIRONMENT=Development
      - ConnectionStrings__StudentsAPIContext=Server=sqldata;Database=StudentDB;User Id=sa;Password=My!P@ssw0rd1;Encrypt=False
      - MessageBroker__Host=amqp://armzaj:Slaptazodis!1@rabbitmq:5672
    ports:
      - "5082:8080"
  sqldata:
    environment:
      - SA_PASSWORD=My!P@ssw0rd1
      - ACCEPT_EULA=Y
    ports:
      - "1433:1433"
    volumes:
      - lab2-sqldata:/var/opt/mssql
  apigateway:
    environment:
      - ASPNETCORE_ENVIRONMENT=Development
    ports:
      - "5083:8080"
  rabbitmq:
    environment:
      - RABBITMQ_DEFAULT_USER=armzaj
      - RABBITMQ_DEFAULT_PASS=Slaptazodis!1
    ports:
      - "15672:15672"
      - "5672:5672"
volumes:
  lab2-sqldata:
    external: false
```

3 pav. Docker compose override file'as

4 pav. Nauja registracija Course API puslapyje

5 pav. RabbitMQ aplinkoje matomi pokyčiai

```json
{
    "id": 1,
    "lastName": "Alexander",
    "firstMidName": "Carson",
    "enrollmentDate": "2005-09-01T00:00:00",
    "enrollments": [
        {
            "enrollmentID": 1,
            "courseID": 1050,
            "title": "Chemistry",
            "credits": 3,
            "studentID": 1,
            "grade": 0,
            "student": null
        },
        {
            "enrollmentID": 2,
            "courseID": 4022,
            "title": "Microeconomics",
            "credits": 3,
            "studentID": 1,
            "grade": 2,
            "student": null
        },
        {
            "enrollmentID": 3,
            "courseID": 4041,
            "title": "Macroeconomics",
            "credits": 3,
            "studentID": 1,
            "grade": 1,
            "student": null
        },
        {
            "enrollmentID": 14,
            "courseID": 0,
            "title": "armzaj",
            "credits": 0,
            "studentID": 1,
            "grade": 1,
            "student": null
        }
    ]
}
```

6 pav. Per API gatway matomas studentas, kuris turi priskirtą naują registraciją