

SIB Integration with Moodle Through Docker

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1 Reason for Using Moodle

In order to accomplish our final goal of integrating SIB with Canvas, we need to first integrate with Moodle LMS to show SLU admin what we will be doing with Canvas LMS in order for SLU admin to grant us a developer key to integrate SIB with Canvas.

2 Moodle Work

Chintak Joshi successfully created a Github repository that installs a local instance of a Moodle server through Docker.

<https://github.com/chintakjoshi/moodle-docker-local>

3 Running SIB in a Docker Container

1. Install Docker Desktop on your local machine
2. Navigate to the SeeingIsBelieving root directory
3. Create Dockerfile

```
FROM node:18-alpine

# Set the working directory in the container
WORKDIR /app

# Copy package.json and package-lock.json (or yarn.lock)
COPY package.json package-lock.json* ./

# Install dependencies
RUN npm install

# Copy the rest of the application code
COPY . .
```

```
# Build the application
RUN npm run build

# The port Next.js will listen on
EXPOSE 3000

# Command to start the Next.js application
CMD ["npm", "start"]
```

4. Build Docker Image

```
docker build -t sib .
```

5. Run Docker Container

```
docker run --env-file .env.production -p 3000:3000 sib
```

4 Running SIB and Moodle in Same Docker Network

In order for SIB to communicate with Moodle for integration purposes, both SIB and Moodle need to communicate with each other through a Docker network.

Steps Taken So Far:

1. Created a folder (nextjs) to house all of the current version of SIB
2. Created a second folder to hold a Chintak's cloned Moodle repository (moodle-docker-local)
3. Created a docker-compose.yml file in the same root as nextjs and moodle-docker-local

Here's the current version of the docker-compose.yml:

```
services:
  myapp:
    build: ./nextjs
    ports:
      - "3000:3000"
    env_file:
      - .env.production
    networks:
      - app-network

moodle:
```

```

image: lthub/moodle
depends_on:
  - moodle-db
environment:
  MOODLE_DB_TYPE: mariadb
  MOODLE_DB_HOST: moodle-db
  MOODLE_DB_NAME: moodle
  MOODLE_DB_USER: moodle
  MOODLE_DB_PASSWORD: password
  MOODLE_URL: http://localhost:8080
ports:
  - "8080:80"
networks:
  - app-network
volumes:
  - ../data/web:/moodledata:rw
command: /bin/bash -c "echo 'ServerName localhost' >> /etc/apache2/apache2.conf && apach

moodle-db:
  image: mariadb
  environment:
    MYSQL_ROOT_PASSWORD: password
    MYSQL_DATABASE: moodle
    MYSQL_USER: moodle
    MYSQL_PASSWORD: password
  volumes:
    - moodle_db_data:/var/lib/mysql
  networks:
    - app-network

networks:
  app-network:
    driver: bridge

volumes:
  moodle_db_data:
  moodle_web_data:

Command to start the Docker instance:
docker-compose up -d

```

Errors Being Encountered:

1. NextJS application: I keep getting errors when I try to log in that the API credentials are not accurate. I think this must be related to the way I'm pulling the environment variables from the .env files
2. Moodle Instance: I keep getting errors about the ServerName not being set and Shibboleth Configuration errors