```bash
#!/bin/bash

FRONTEND_URL="http://localhost:5173"
BACKEND_URL="http://localhost:3000"
DB_CONTAINER_NAME="mongodb"
DB_PORT=27017

# Function to check if a service is running
check_service() {
    local service_name=$1
    local port=$2
    if nc -zv localhost $port 2>/dev/null; then
        echo "$service_name is running on port $port."
    else
        echo "ERROR: $service_name is not running on port $port!"
    fi
}

# Check frontend service
echo "Checking Frontend..."
curl -I $FRONTEND_URL 2>/dev/null | grep "200 OK" && echo "Frontend is accessible." ||
echo "ERROR: Frontend is not accessible!"

# Check backend service
echo "Checking Backend..."
curl -I $BACKEND_URL 2>/dev/null | grep "200 OK" && echo "Backend is accessible." ||
echo "ERROR: Backend is not accessible!"

# Check database service
echo "Checking Database..."
if docker exec $DB_CONTAINER_NAME mongo --eval "db.stats()" 2>/dev/null; then
    echo "Database is accessible."
else
    echo "ERROR: Database is not accessible!"
fi

# Test frontend-to-backend communication
echo "Testing Frontend-to-Backend Communication..."
curl -I $FRONTEND_URL/api/test 2>/dev/null | grep "200 OK" && echo "Frontend-to-
Backend communication successful." || echo "ERROR: Frontend-to-Backend communication
failed!"
```

```
# Test backend-to-database connection
echo "Testing Backend-to-Database Connection..."
if curl -s $BACKEND_URL/api/db-test | grep "Database connection successful"; then
    echo "Backend-to-Database communication successful."
else
    echo "ERROR: Backend-to-Database communication failed!"
fi
```