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package nl.example.controller;

import org.springframework.web.bind.annotation.*;
import
org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import java.security.MessageDigest;
import java.security.NoSuchAlgorithmException;
import java.util.Base64;

@RestController
public class PasswordHashController {

    @Autowired
    private PasswordHashService passwordHashService;

    @GetMapping("/hashPassword")
    public PasswordResponse hashPassword(@RequestParam
String password, @RequestParam(required = false) String salt)
    {
        String hashedPassword =
passwordHashService.hashPasswordWithOptionalSalt(passwo
rd, salt);
        PasswordResponse response = new
PasswordResponse();
        response.setHashedPassword(hashedPassword);
        return response;
    }
}

@Service
class PasswordHashService {

    public String hashPasswordWithOptionalSalt(String
password, String salt) {
        try {
            MessageDigest md =
MessageDigest.getInstance("SHA-384);

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        if (salt != null && !salt.isEmpty()) {
            password += salt;
        }
        byte[] hashBytes = md.digest(password.getBytes());
        return
Base64.getEncoder().encodeToString(hashBytes);
    } catch (NoSuchAlgorithmException e) {
        throw new RuntimeException("Error hashing
password", e);
    }
}
}

class PasswordResponse {
    private String hashedPassword;

    public String getHashedPassword() {
        return hashedPassword;
    }

    public void setHashedPassword(String hashedPassword) {
        this.hashedPassword = hashedPassword;
    }
}

```