```
composer create-project symfony/skeleton sym434 // framework bundle
cd sym434
git init
//loop
git status
git add --all
cd ~/testSym43/sym434
php -S 127.0.0.1:8000 -t public
http://localhost:8000/ //=> Welcome to Symfony 4.3.3
composer require annotations // sensio_framework_extra bundle
composer require twig // template
composer require symfony/asset // link to js, images
composer require doctrine/orm // bibliothek
composer require doctrine/doctrine-bundle // bundle
composer require symfony/validator
//sudo nano .env
DATABASE_URL=mysql://root:vuanh123@127.0.0.1:3306/sym43
// bin/console doctrine:database:create
bin/console doctrine:schema:create
composer require --dev doctrine/doctrine-fixtures-bundle // make fixtures => set init-data in table
rm -rf var/cache // => reset routes...
// security
composer require symfony/security-bundle
php bin/console make:user
//created: src/Entity/User.php
//created: src/Repository/UserRepository.php
//updated: config/packages/security.yaml
// http://localhost:8000/list // => http://localhost:8000/login
// http://localhost:8000/logout // => http://localhost:8000/table
```

```
//mail
//In Symfony 4.3, the Mailer component was introduced and can be used instead of Swift Mailer.
//composer require symfony/mailer
composer require symfony/swiftmailer-bundle
// sudo nano .env
###> symfony/swiftmailer-bundle ###
# For Gmail as a transport, use: "gmail://username:password@localhost"
# For a generic SMTP server, use: "smtp://localhost:25?encryption=&auth_mode="
# Delivery is disabled by default via "null://localhost"
#MAILER URL=null://localhost
MAILER_URL=gmail://hong66.lenguyen@gmail.com:hong____1234@gmail.com
###< symfony/swiftmailer-bundle ###
//form
composer require symfony/form
// http://localhost:8000/contact => send mail über gmail an vuanhde@yahoo.de
// config/services.yaml-----
# exception händler
App\EventListener\ExceptionListener:
    tags:
      - { name: kernel.event listener, event: kernel.exception }
https://symfony.com/doc/current/doctrine/pdo session storage.html
#session in db stored
Symfony\Component\HttpFoundation\Session\Storage\Handler\PdoSessionHandler:
    arguments:
      - 'mysql:dbname=sym42; host=localhost; port=3306'
      - { db table: 'sessions', db username: root, db password: vuanh123 }
# config/packages/framework.yaml-----
framework:
  session:
    handler id: Symfony\Component\HttpFoundation\Session\Storage\Handler\PdoSessionHandler
CREATE TABLE `sessions` (
  `sess_id` VARCHAR(128) NOT NULL PRIMARY KEY,
  `sess data` BLOB NOT NULL,
  'sess time' INTEGER UNSIGNED NOT NULL,
  `sess lifetime` MEDIUMINT NOT NULL
) COLLATE utf8mb4_bin, ENGINE = InnoDB;
```

```
// test session setting
// http://localhost:8000/session
// test session getting
// http://localhost:8000/session2
// mySQL
mysql -u root -p
//pw vuanh123
mysql> use sym43;
//Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
mysql> SELECT * FROM `sessions`;
// select sess_id from `sessions`;
mysql> SELECT * FROM `user`;
// tools
composer require symfony/maker-bundle --dev // maker bundle
./bin/console make:controller DefaultController
composer require profiler // tool bundle
composer require server –dev // web server
cd ~/testSym43/sym433
// apache
sudo service apache2 stop
sudo service apache2 start
// jenkins
sudo systemctl stop jenkins.service
sudo systemctl start jenkins.service
```