

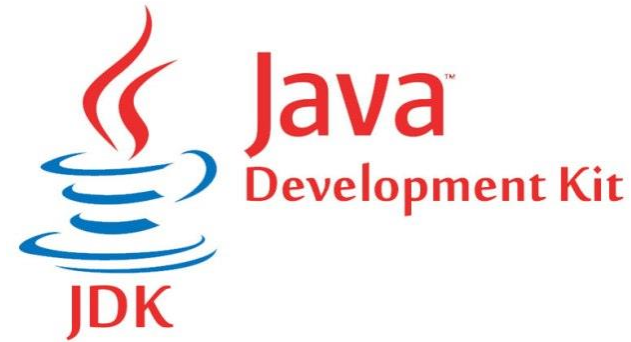


Performance Test Tools  
**Installation and  
Configuration**

---



# Step 1



## Install Java SE Development Kit (SDK)

- 
- JAVA VERSION 1.8 OR HIGHER
  - REQUIRE JVM 8 OR HIGHER



## Step 1) Install Java

Because JMeter is pure Java desktop application, it requires a fully compliant JVM 6 or higher. You can download and install the latest version of Java SE Development Kit.

[Download Java Platform \(JDK\)](#)



After installation is finished, you can use the following procedure to check whether Java JDK is installed successfully in your system

- In Window/Linux, go to **Terminal**
- Enter command **java -version**



If the Java runtime environment is installed successfully, you will see the output as the figure below

```
Administrator: C:\Windows\system32\cmd.exe
C:\Users\Administrator.PC>java -version
java version "1.7.0_25"
Java(TM) SE Runtime Environment (build 1.7.0_25-b17)
Java HotSpot(TM) 64-Bit Server VM (build 23.25-b01, mixed mode)
C:\Users\Administrator.PC>_
```

If nothing displays, please re-install Java SE runtime environment

# Step 2

## Install JMeter

- USING VERSION 5.1.1



### About

- [Overview](#)
- [License](#)

### Download

- [Download Releases](#)
- [Release Notes](#)

### Documentation

- [Get Started](#)
- [User Manual](#)
- [Best Practices](#)
- [Component Reference](#)
- [Functions Reference](#)
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### Tutorials

- [Distributed Testing](#)
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- [Access Log Sampler](#)
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# Download Apache JMeter

We recommend you use a mirror to download our release builds, but you **must** [verify the integrity](#) of the downloaded files using signatures downloaded from our main distribution directories. Recent releases (48 hours) may not yet be available from all the mirrors.

You are currently using <https://www-eu.apache.org/dist/>. If you encounter a problem with this mirror, please select another mirror. If all mirrors are failing, there are *backup* mirrors (at the end of the mirrors list) that should be available.

Other mirrors:

The **KEYS** link links to the code signing keys used to sign the product. The **PGP** link downloads the OpenPGP compatible signature from our main site. The **SHA-512** link downloads the sha512 checksum from the main site. Please [verify the integrity](#) of the downloaded file.

For more information concerning Apache JMeter, see the [Apache JMeter](#) site.

[KEYS](#)

## Apache JMeter 5.1.1 (Requires Java 8+)

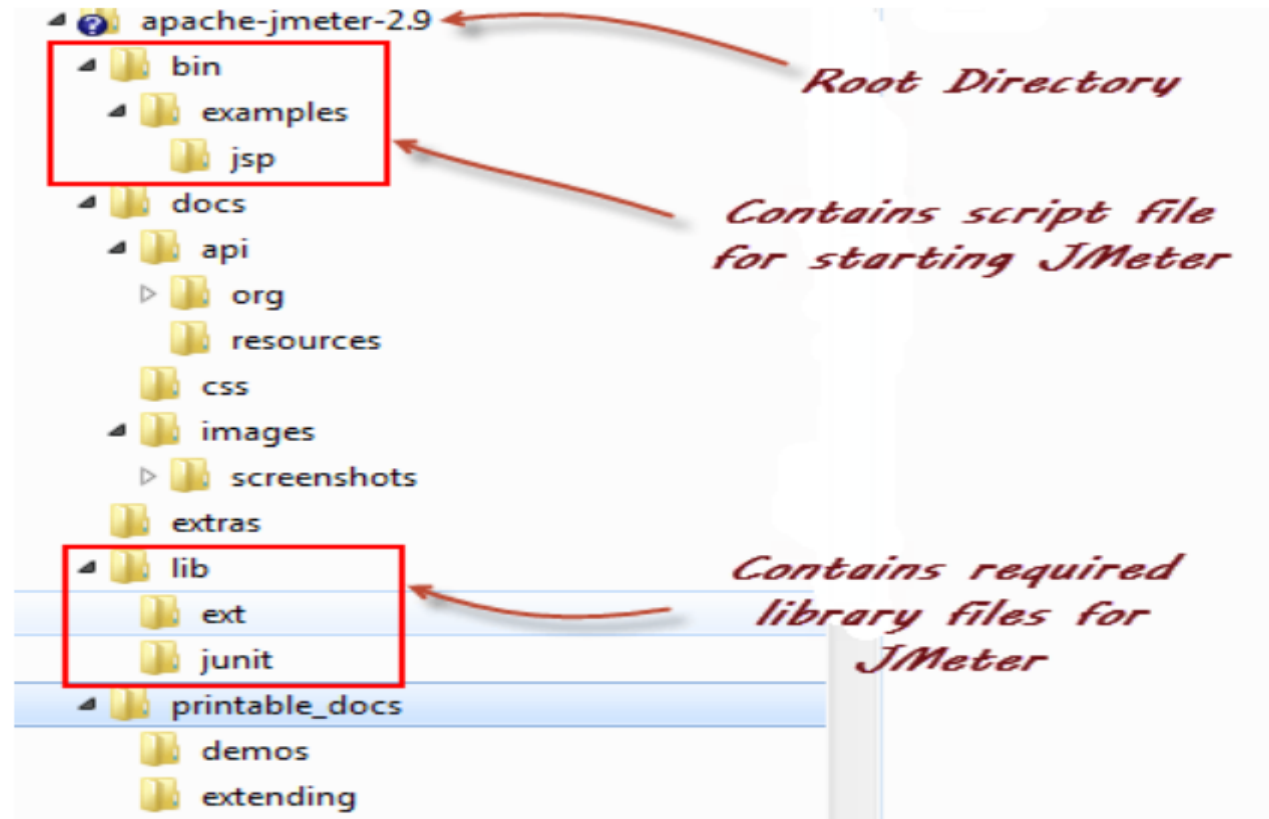
### Binaries

[apache-jmeter-5.1.1.tgz sha512 pgp](#)  
[apache-jmeter-5.1.1.zip sha512 pgp](#)

### Step 3) Installation

Installation of JMeter is extremely easy and simple. You simply unzip the zip/tar file into the directory where you want JMeter to be installed. There is no tedious installation screen to deal with! Simply unzip and you are done!

Once the unzipping is done installation directory structure should look like as figure below



# JMeter Directories

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Given below is the description of the JMeter directories and its importance JMeter directory contains many files and directory

- **/bin:** Contains JMeter script file for starting JMeter
- **/docs:** JMeter documentation files
- **/extras:** ant related extra files
- **/lib/:** Contains the required Java library for JMeter
- **/lib/ext:** contains the core jar files for JMeter and the protocols
- **/lib/junit:** Junit library used for JMeter
- **/printable\_docs:**



# How to launch JMeter

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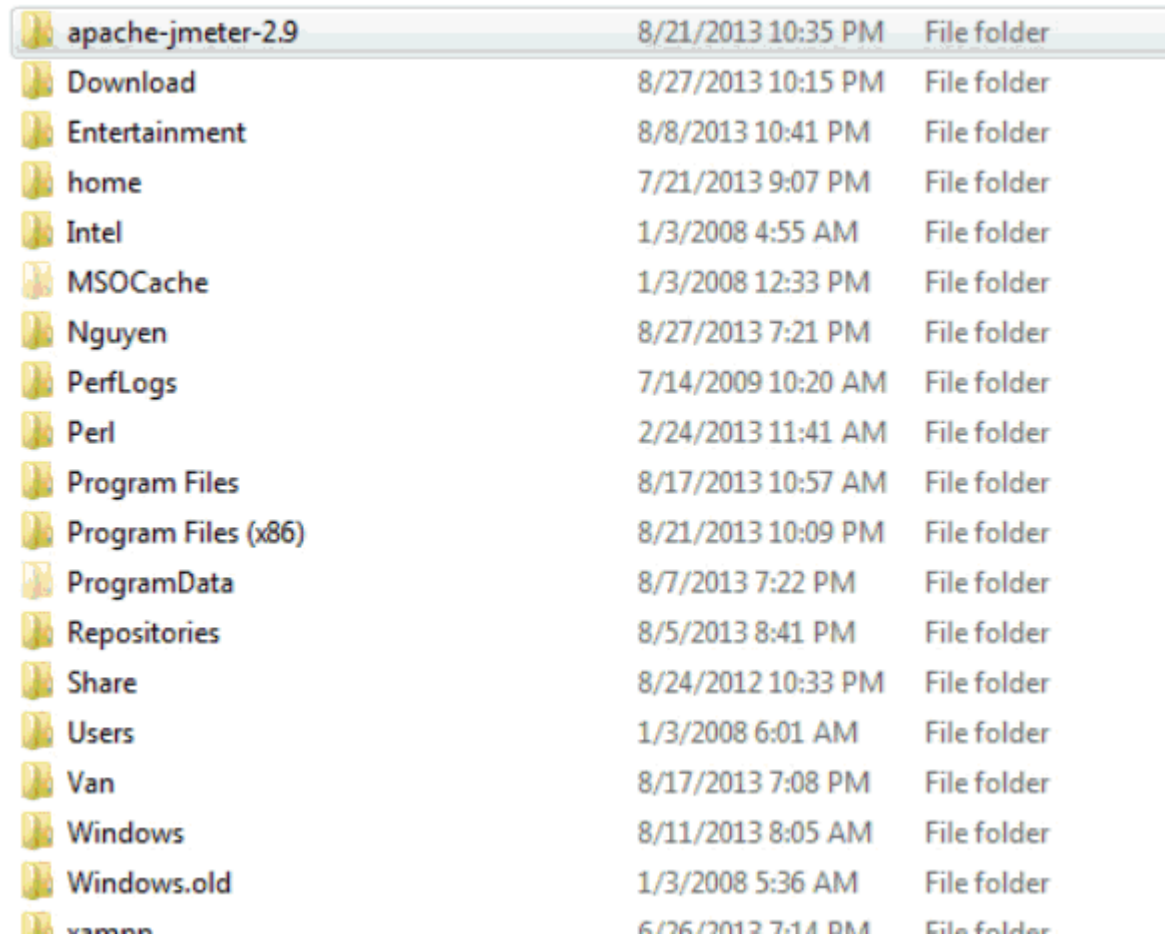
## Step 4) Launch JMeter

You can start JMeter in 3 modes

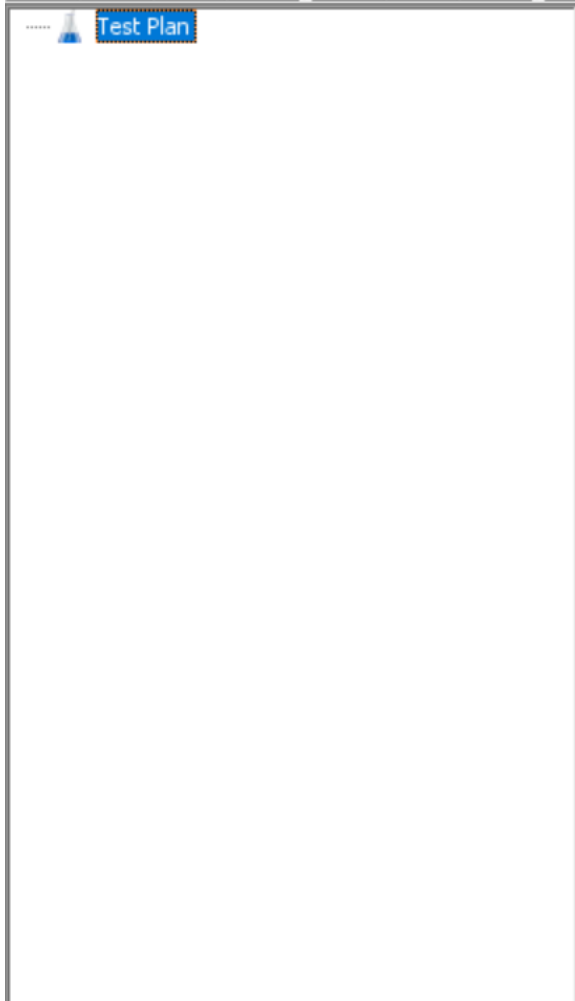
- GUI Mode
- Server Mode
- Command Line Mode

# Start JMeter in GUI Mode

If you are using Window, just run the file `/bin/jmeter.bat` to start JMeter in GUI mode as shown below



apache-jmeter-2.9	8/21/2013 10:35 PM	File folder
Download	8/27/2013 10:15 PM	File folder
Entertainment	8/8/2013 10:41 PM	File folder
home	7/21/2013 9:07 PM	File folder
Intel	1/3/2008 4:55 AM	File folder
MSOCache	1/3/2008 12:33 PM	File folder
Nguyen	8/27/2013 7:21 PM	File folder
PerfLogs	7/14/2009 10:20 AM	File folder
Perl	2/24/2013 11:41 AM	File folder
Program Files	8/17/2013 10:57 AM	File folder
Program Files (x86)	8/21/2013 10:09 PM	File folder
ProgramData	8/7/2013 7:22 PM	File folder
Repositories	8/5/2013 8:41 PM	File folder
Share	8/24/2012 10:33 PM	File folder
Users	1/3/2008 6:01 AM	File folder
Van	8/17/2013 7:08 PM	File folder
Windows	8/11/2013 8:05 AM	File folder
Windows.old	1/3/2008 5:36 AM	File folder
vamon	6/26/2013 7:14 PM	File folder



### Test Plan

Name:

Comments:

#### User Defined Variables

Name:	Value

- Run Thread Groups consecutively (i.e. one at a time)
- Run tearDown Thread Groups after shutdown of main threads
- Functional Test Mode (i.e. save Response Data and Sampler Data)

Selecting Functional Test Mode may adversely affect performance.

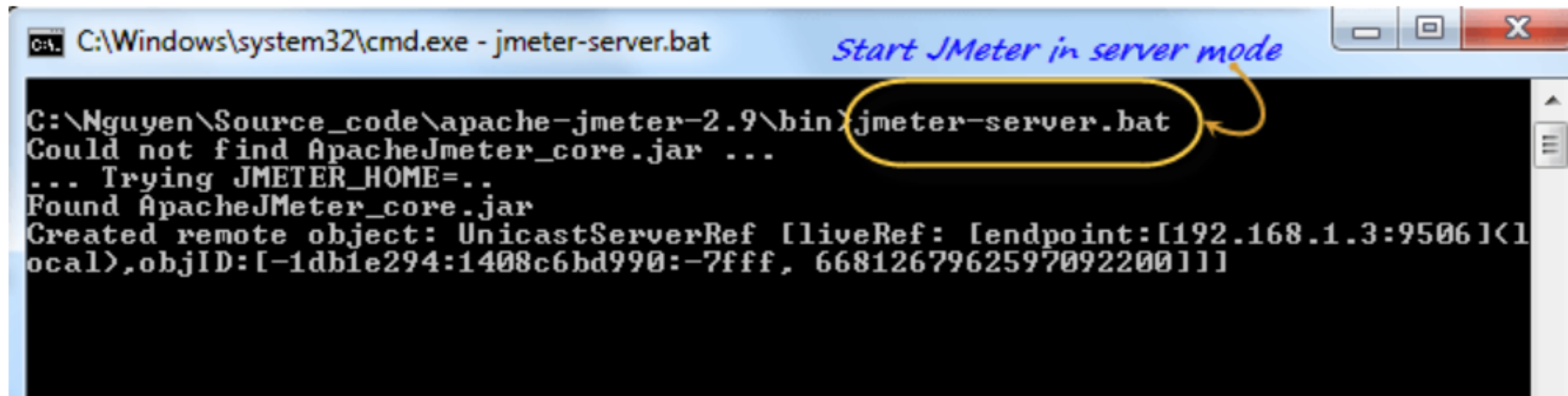
Add directory or jar to classpath

Library

## Start JMeter in Server Mode

Server mode is used for **distributed** testing. This [Testing](#) works as a **client-server** model. In this model, JMeter runs on a server computer in **server** mode. On a client computer, JMeter runs in **GUI** mode.

To start the server mode, you run the bat file `bin\jmeter-server.bat` as below figure

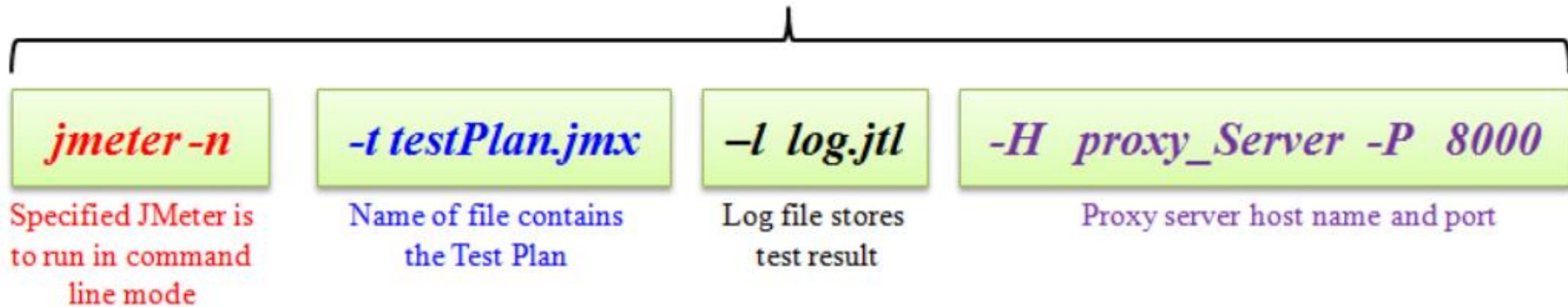


```
C:\Windows\system32\cmd.exe - jmeter-server.bat
C:\Nguyen\Source_code\apache-jmeter-2.9\bin\jmeter-server.bat
Could not find ApacheJmeter_core.jar ...
... Trying JMeter_HOME=..
Found ApacheJMeter_core.jar
Created remote object: UnicastServerRef [liveRef: [endpoint:[192.168.1.3:9506]<1
ocal>,objID:[-1db1e294:1408c6bd990:-7fff, 6681267962597092200]]]
```

## Start JMeter in command line mode

JMeter in GUI mode consumes much computer memory. For saving the resource, you may choose to run JMeter without the GUI. To do so, use the following command options

### *JMeter command line*



This is a command line example

```
$jmeter -n -t testPlan.jmx -l log.jtl -H 127.0.0.1 -P 8000
```

# Step 3



## Install XAMP or WAMP or MAMP

- 
- USE FOR HANDS ON AND INDIVIDUAL PROJECT







**WampServer**  
Apache, PHP, MySQL on Windows

[START](#) [DOWNLOAD](#) [FORUM](#)

# WAMP SERVER,

a Windows web development environment.

CONTRIBUTION ALTER WAY

WampServer is a Windows web development environment. It allows you to create web applications with Apache2, PHP and a MySQL database. Alongside, PhpMyAdmin allows you to manage easily your databases.

[START USING WAMP SERVER](#)

Apache Friends [Download](#) [Add-ons](#) [Hosting](#) [Community](#) [About](#)  [Search](#) [EN](#)

# XAMPP Apache + MariaDB + PHP + Perl

## What is XAMPP?

XAMPP is the most popular PHP development environment

XAMPP is a completely free, easy to install Apache distribution containing MariaDB, PHP, and Perl. The XAMPP open source package has been set up to be incredibly easy to install and to use.

Introduction to XAMPP



# MAMP & MAMP PRO

Your local web development solution

# Step 4



## Install HESK System

---

- USE FOR HANDS ON





# Create HESK database



1. Open phpmyadmin
2. Create database name 'hesk'
3. Create user 'hesk'
4. Tick 'Global privileges' and 'Go'

A screenshot of the 'Global privileges' page in phpMyAdmin. At the top, there is a header 'Global privileges' with a checked checkbox and a 'Check all' button. Below this is a note: 'Note: MySQL privilege names are expressed in English.' There are three main sections: 'Data', 'Structure', and 'Administration', each with a checked checkbox. Under 'Data', there are checkboxes for SELECT, INSERT, UPDATE, DELETE, and FILE. Under 'Structure', there are checkboxes for CREATE, ALTER, INDEX, DROP, CREATE TEMPORARY TABLES, and SHOW VIEW. Under 'Administration', there are checkboxes for GRANT, SUPER, PROCESS, RELOAD, SHUTDOWN, and SHOW DATABASES.

## Databases

A screenshot of the 'Create database' form in phpMyAdmin. It features a 'Create database' button with a plus icon. Below it, there is a text input field containing 'hesk', a dropdown menu showing 'utf8\_bin', and a 'Create' button.

## Add user account

A screenshot of the 'Add user account' form in phpMyAdmin. It has a 'Login Information' header. The form contains four rows: 'User name:' with a dropdown menu set to 'Use text field:' and a text input field containing 'hesk'; 'Host name:' with a dropdown menu set to 'Local' and a text input field containing 'localhost'; 'Password:' with a dropdown menu set to 'Use text field:' and a text input field with four dots; and 'Re-type:' with a text input field with four dots.

# Installing HESK System

---

1. Copy hesk.zip
2. Extract hesk.zip
3. Copy hesk folder into www directory in XAMP, WAMP or MAMP
4. Open browser and open url <http://localhost/hesk/install>

HESK setup script: 2.8.4

**Important:** [Read installation guide](#) before using this setup script!



Thank you for downloading HESK. Please choose an option below:

[Click here to INSTALL HESK »](#)

Install a new copy of HESK


[Click here to UPDATE HESK »](#)

Update existing HESK to version 2.8.4

Powered by [Help Desk Software HESK](#), in partnership with [SysAid Technologies](#)

1. Click 'Click here to INSTALL HESK'
2. Click 'I ACCEPT (Click to continue)'

## Database settings

 **Tip:** Contact your host for help with correct database settings

Database Host:	<input type="text" value="localhost"/>
Database Name:	<input type="text" value="hesk"/>
Database User (login):	<input type="text" value="hesk"/>
User Password:	<input type="text" value="hesk"/>
Table prefix:	<input type="text" value="hesk_"/>

## HESK login details

Username and password you will use to login into HESK administration.

Choose a Username:	<input type="text" value="administrator"/>
Choose a Password:	<input type="text" value="administrator"/>

[Generate a random password](#)

## Other info

Help desk timezone:	<input type="text" value="Asia/Kuala_Lumpur - 24 Oct 2019, 09:30"/>
---------------------	---

[Continue to Step 4](#)

## HESK setup script: 2.8.4

1. License agreement » 2. Check setup » 3. Setup Database » 4. Finishing touches

✓ **Success:** Congratulations, you have successfully completed HESK database setup!

### Next steps:

1. Delete the **/install** folder from your server!
2. Remember your login details:

Username: **administrator**

Password: **administrator**

[Read HESK quick start guide](#)

- or -

[Skip directly to settings](#)

# Configure HESK System

---

1. Open browser and open url <http://localhost/hesk/admin>
2. Login as administrator, password: administrator
3. Click **'Settings'**
4. Click tab **General**, change URL to <http://localhost/hesk/admin>
5. Click tab **Helpdesk**, change Use-anti SPAM image to **'OFF'**
6. In tab **Helpdesk**, change Use attachment to **'NO'**
7. Click **'Save Changes'**
8. Click **'Logout'**

# Create user HESK System

---

1. Open browser and open url <http://localhost/hesk/admin>
2. Login as administrator, password: administrator
3. Click **'Users'**

# 1. Fill in 'Profile Information'

## Add new user

Required fields are marked with \*

**Profile information** | Permissions | Signature | Preferences | Notifications

Real name: \*

Email: \*

Username: \*

Password:

Confirm password:

Password Strength:

Auto-assign tickets to this user.

# 2. Change permissions to 'Staff'

## Add new user

Required fields are marked with \*

**Profile information** | Permissions | **Signature** | Preferences | Notifications

Account type:  Administrator (access to all features and categories)  
 Staff (you can limit features and categories)

# 3. Tick 'Can run reports (all)'

- Can run reports (own)
- Can run reports (all)
- Can export tickets

# 4. Create User

---

[Create user](#) | [Reset form data](#)



# Login and Create Ticket HESK System

1. Open browser and open url <http://localhost/hesk/admin>
2. Login as user
3. Click **'New Tickets'**
4. Fill ticket information
5. Click **'Submit Ticket'**
6. Click **'Logout'**

**Insert a new ticket**  
Required fields are marked with \*

Name: \*

Email: \*

---

Priority: \*

---

Subject: \*

Message: \*

---

**Options:**  Send email notification to the customer  
 Show the ticket after submission

---

**Owner:**  Assign this ticket to myself

# Step 5



## Install SUPPORT System

---

- USE FOR INDIVIDUAL PROJECT



# Create SUPPORT database



1. Open phpmyadmin
2. Create database name 'support'
3. Create user 'support'
4. Tick 'Global privileges' and 'Go'

## Databases

Create database ⓘ

support utf8\_bin Create

## Add user account

Login Information

User name: Use text field: support

Host name: Local localhost

Password: Use text field: .....

Re-type: .....

Global privileges  Check all

Note: MySQL privilege names are expressed in English.

Data

- SELECT
- INSERT
- UPDATE
- DELETE
- FILE

Structure

- CREATE
- ALTER
- INDEX
- DROP
- CREATE TEMPORARY TABLES
- SHOW VIEW

Administration

- GRANT
- SUPER
- PROCESS
- RELOAD
- SHUTDOWN
- SHOW DATABASES

# Installing SUPPORT System

---

1. Copy support.zip
2. Extract support.zip
3. Copy support/support folder into www directory in XAMP, WAMP or MAMP
4. Open browser and open url <http://localhost/support>




## OpenSupports Installation Wizard

This wizard will help you to configure and install OpenSupports on your website

- 1. Language
- 2. Server requirements
- 3. Database configuration
- 4. User System
- 5. Settings
- 6. Admin setup
- 7. Completed

### Step 1 of 7 - Select language

Select your preferred language for the installation wizard.

 English

Next

- 1. Language
- 2. Server requirements
- 3. Database configuration
- 4. User System
- 5. Settings
- 6. Admin setup
- 7. Completed

## Step 2 of 7 - Server requirements

Here are listed the requirements for running OpenSupports. Please make sure that all requirements are satisfied.

 Refresh

Requirement	Value
PHP Version	✓ 7.2.18
PDO Module	✓ Available
File: /api/config.php	✓ Writable
Folder: /api/files	✓ Writable

Previous

Next

- ✓ 1. Language
- ✓ 2. Server requirements
- ➔ 3. Database configuration
- 4. User System
- 5. Settings
- 6. Admin setup
- 7. Completed

## Step 3 of 7 - Database configuration

Please fill the MySQL database configuration.

MySQL server

MySQL server port ?

MySQL database name ?

MySQL user

MySQL password

Previous

Next

- ✓ 1. Language
- ✓ 2. Server requirements
- ✓ 3. Database configuration
- ➔ 4. User System
- 5. Settings
- 6. Admin setup
- 7. Completed

### Step 4 of 7 - User System

Please select your user system preferences.

Use user system for customers

On

Enable user registration

On

Next



- ✓ 1. Language
- ✓ 2. Server requirements
- ✓ 3. Database configuration
- ✓ 4. User System
- ➔ 5. Settings
- 6. Admin setup
- 7. Completed

## Step 5 of 7 - Settings

Please fill your general system preferences.

Title

Allow file attachments

Email server address [?](#)

### SMTP Server

The configuration of the SMTP server allows the application to send mails. If you do not configure it, no emails will be sent by OpenSupports.

- ✓ 1. Language
- ✓ 2. Server requirements
- ✓ 3. Database configuration
- ✓ 4. User System
- ✓ 5. Settings
- 6. Admin setup
- 7. Completed

## Step 6 of 7 - Admin setup

Please configure the administrator account.

Admin account name

Admin account email

Admin account password [?](#)

Next

# Support System

localhost/support/



Log in Sign up

English

## LOG IN

Remember me

LOG IN

[Forgot your password?](#)

## Support System

Welcome to our support center. You can contact us through a tickets system. Your tickets will be answered by our staff.



### TICKETS

Send ticket through our support center and get response of your doubts, suggestions and issues.



### ACCOUNT

All your tickets are stored in your account's profile. Keep track of all your tickets you send to our staff team.



### ARTICLES

Take a look to our articles about common issues, guides and documentation.

Powered by [OpenSupports](#)

# Admin Login

localhost/support/admin



Email

administrator@mail.com

Password

.....

LOG IN

[Forgot your password?](#)

# Admin Login



localhost/support/admin/panel/activity



Welcome, **administrator**

 English



administrator

[My Account](#) | [Close session](#)



Dashboard

Statistics



Tickets



Users



Articles



Staff



Settings

Last Activity

## Last Activity

My notifications

All notifications

# Admin Login – Create User

---

1. Click icon 'User'
2. Click 'Add User'

## Sign up

Here you can create an account for our support center. It is required to send tickets and see documentation.




Full name


Email

Password

Repeat password

# User Login

localhost/support/   

Log in Sign up  English

### LOG IN


  
  
 Remember me  

**LOG IN**

[Forgot your password?](#)


## Support System

Welcome to our support center. You can contact us through a tickets system. Your tickets will be answered by our staff.




### TICKETS

Send ticket through our support center and get response of your doubts, suggestions and issues.



### ACCOUNT

All your tickets are stored in your account's profile. Keep track of all your tickets you send to our staff team.



### ARTICLES

Take a look to our articles about common issues, guides and documentation.

Powered by [OpenSupports](#)

# User Login – Create Ticket

---

1. Click icon ‘**Create Ticket**’
2. Fill in form
3. Click button ‘**Create Ticket**’
4. Click ‘**Close Session**’

## Create Ticket


This is a form for creating tickets. Fill the form and send us your issues/doubts/suggestions. Our support system will answer it as soon as possible.

Title










Department

Help and Support

Language

 English

Content

Normal  **B** *I* U        



# THANK YOU



Successful Performance Testing  
Engagement