

# Testing email with Mailcatcher

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# 1. A typical email architecture

- Web controllers publish messages (to the application DB, RabbitMQ, Cloud pub/sub, etc.)
- A messenger worker processes these messages asynchronously, sends them to the local MTA (typically running in the same container)
- The MTA handles the mechanics of sending the messages to the target SMTP server (retries, etc.)

## 2. Testing objectives

- Identical code on local and remote environments
- Emails actually sent in dev (not just held off)
- ... while avoiding spamming real users (or getting blacklisted)
- Actual emails can be inspected

- An SMTP server running on localhost
- Can be deployed as an executable or a docker container (the latter is straightforward)
- Includes a web server where emails can be viewed

# 3. Mailcatcher

The screenshot shows the MailCatcher web interface. At the top, there is a browser address bar with the URL 192.168.56.101:1080. Below the address bar is the MailCatcher logo and a search bar with the text "Search messages...". To the right of the search bar are buttons for "Clear" and "Quit". Below the search bar is a table with the following columns: "From", "To", "Subject", and "Received". The table contains one row of data:

From	To	Subject	Received
<example@test.com>	<nobody@example.com>	Test email	Saturday, 2 Jan 2016 4:38:56 PM

Below the table is a detailed view of the selected email. It shows the following information:

Received Saturday, 2 Jan 2016 4:38:56 PM  
From <example@test.com>  
To <nobody@example.com>  
Subject Test email

Below the email information are two buttons: "Plain Text" and "Source". To the right of these buttons is a "Download" button.

This is a test email from the server

## 4. Typical configuration

- Define different SMTP configuration for local dev and remote environments
- Example using msmtplib as MTA:
  - msmtplib determines the SMTP account to use depending on the sender email address
  - define a different sender email address on local dev

# 4. Typical configuration

```
defaults
logfile      /var/www/var/log/msmtp/msmtp.log

# OVH
account      ovh
host         ssl0.ovh.net
auth         on
port         465
from         info@example.com
user         info@example.com
passwordeval "echo $MAILER_PASSWORD"
auth         on
tls          on
tls_trust_file /etc/ssl/certs/ca-certificates.crt
tls_starttls off

# mailcatcher (local)
account      mailcatcher
host         10.0.2.2
port         1025
from         dummy@example.com
auth         off
tls          off

# Set a default account
account default : {{ .Env.SMTP_ACCOUNT }}
```



- Only runs on localhost, can't be shared
- Alternative: Mailtrap: similar functionality, but on a remote server (SaaS)
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- Reference: <https://blog.mailtrap.io/mailcatcher-guide/>