

# Crossover

## Instructions

Your challenge has started.

Please read through your assignment very carefully before beginning your solution. Try to complete as much of the solution as possible in the given timeframe. To upload your solution, click the "SELECT FILE" button above. After selecting your solution, click "UPLOAD". You will be able to review your submission after uploading it.

If you have any questions, submit a [Support Request](#). However, your questions should pertain to the test-taking procedure rather than the content of the assignment. If you had any problems and need an extension, please feel free to Request an Extension. We will determine the extension period based on the reason of the request.

## Assignment



*Your objective is to perform a set of tasks described below. Please try to complete as much as possible within given time-frame.*

### Preconditions

1. You should work on your local machine.
2. You may use any IDE or editor for developing the application.
3. You must use the latest PHP5 version compatible with required libraries.
4. You must use Apache or IIS as the web server.
5. You must use MySQL as database.
6. You must use one of these frameworks:
  1. Laravel
  2. CodeIgniter
  3. Yii2
  4. Symfony2

Failing to follow these rules will invalidate your submission and you will not be evaluated. Requirements: Objective Create a public news publishing portal where news can be published and disseminated

### Functional Specifications

Create a public news publishing system where people can report or read news

- News publishing web application
  - Any user could register with an email address. The application sends a verification link to the email address. When the user clicks the link, the application asks for a new password (can be tested on

localhost w/o need for a public domain). Now the user is registered and is able to publish news. Without this verification user cannot publish news.

- After log in the user could see his own published news list, remove or publish a new article. No edit of news is permitted.
- For each news article the following information is required
  - News title
  - A single photo
  - News text
  - Current date and time
  - Reporter user name / email
- Newsstand web application available w/o log in for general public
  - Users could see the news highlights. Latest 10 news only.
  - Upon clicking an article highlight, the user is able to view a complete article.
  - The user is able to download a PDF file of the displayed news article.
- A News RSS feed service
  - An RSS feed can be subscribed to, which includes latest 10 news articles.

### Technical Specifications

1. Use MVC design.
2. Use MySQL database. Create the needed tables.
3. Use a PDF export library.
4. Create a single application with the publishing, newsstand and RSS service.
5. Use PHP Mailer as mailing library.
6. Apply input validations and constraints wherever necessary to create a stable application.
7. Even if you are not able to complete all the tasks, try to achieve a working application.

### Deliverables

#### Application Demo

Record the demonstration of the application using Wink. Do not upload the video. Save it to your local machine.

#### Database script

Create a single SQL script file to create the database, its schema and any stored procedure you may use.

#### Readme

Create a txt file with the following information

1. Steps to create and initialize the database
2. Steps to prepare the source code to build/run properly
3. Any assumptions made and missing requirements that are not covered in the specifications
4. Any feedback you may wish to give about improving the assignment

### Design diagrams

Create a doc file containing the following information and diagrams

1. List of technologies and design patterns used
2. An overall activity or sequence diagram
3. An overall layer or component interaction diagram

**To be evaluated**

1. The quality of the output (functionality)
2. Code quality and completeness
3. Technologies applied
4. Extra validations and assumptions which are not described
5. Add missing requirements to the implementation, according to your experience.

**Delivery / What to submit**

**Please, read and follow this section carefully. Any delivery that does not follow this section will score much less or simply won't be evaluated.**

Delivery for this assignment should consist of an archive named **<your\_name> - Software Engineer -PHP.zip** containing the following:

- Source code/project
- Wink recording, download version 2 from Wink, render the video to swf format
- Readme.txt containing the instructions to configure and run the application, notes and feedback
- Design.doc with needed diagrams

Structure of the resulting zip file should be of the following format

```
<your_name> - Software Engineer - PHP.zip<your_name> - Software Engineer - PHP.zip \Readme.txt
<your_name> - Software Engineer - PHP.zip \Design.doc <your_name> - Software Engineer - PHP.zip
\Wink\ <<< this folder should contain the wink recording <your_name> - Software Engineer - PHP.zip
\Source\ <<< this folder should contain the complete source code for the project(s)ATTENTION! YOUR
APPLICATION WILL BE REJECTED IF IT:
```

- Does not compile
- Does not contain unit tests
- Unit tests are failing