

Pengembangan Aplikasi Berbasis Yii

Chapter IV

Agenda

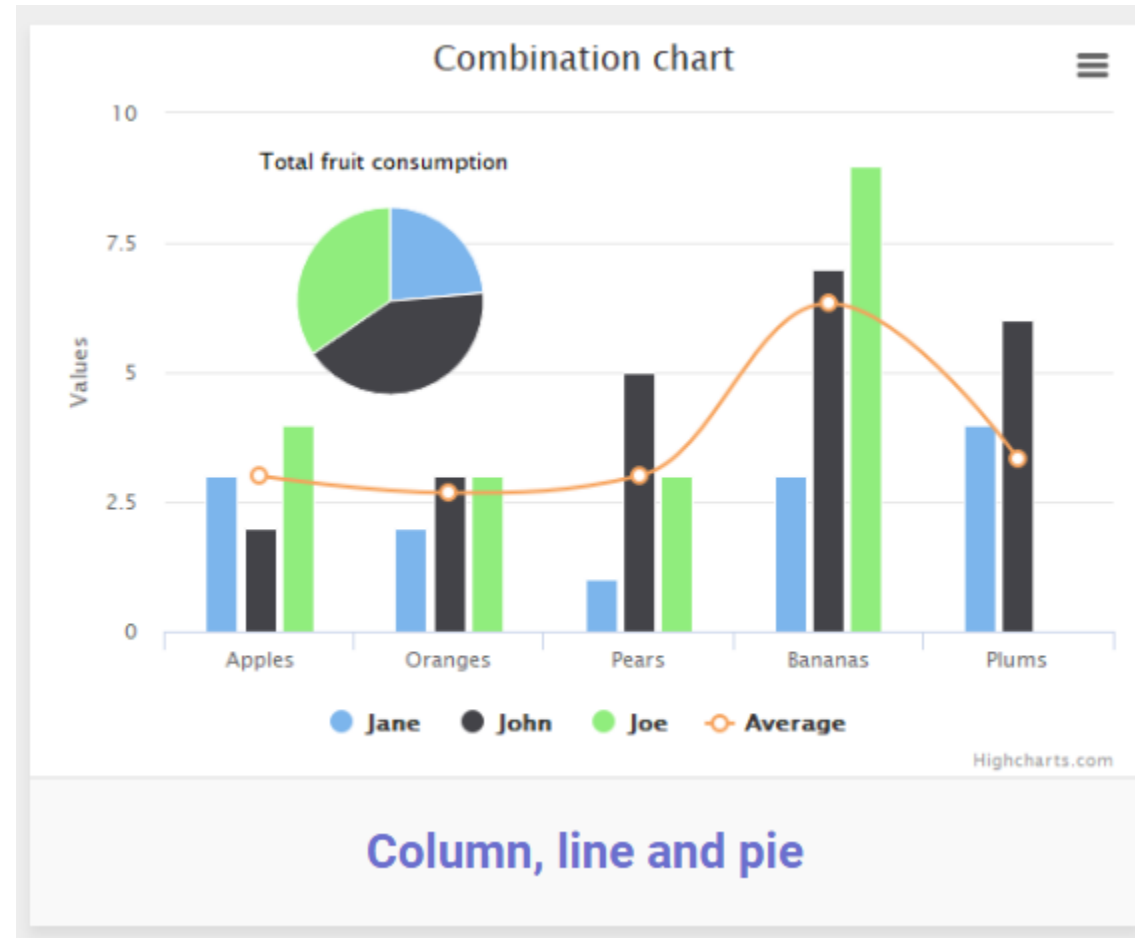
- ❖ Visualisasi Data
- ❖ Export dan Import Data

Visualisasi Data

Visualiasi Data

- ❖ Visualisasi data yang dimaksud di sini adalah menampilkan data dalam bentuk grafik atau chart. Ada banyak library yang bisa digunakan untuk membuat tampilan grafik, salah satunya yang cukup populer adalah Highchart (<http://www.highcharts.com/>). Library ini berbayar untuk tujuan proyek aplikasi commercial.
- ❖ Highchart banyak digunakan oleh perusahaan besar, semisal Facebook, Twitter, Yahoo, dsb.

Contoh Tampilan Demo Highchart



Install Highchart pada Yii2

- Salah satu extension Yii yang mem-wrap library ini dan cukup populer adalah yii2-highcharts (<https://github.com/miloschuman/yii2-highcharts>). Tidak hanya Highchart, kita juga bisa mengintegrasikan library lain yang berafiliasi dengan Highchart yaitu Highstock dan Highmaps.

```
composer require miloschuman/yii2-highcharts-widget
```

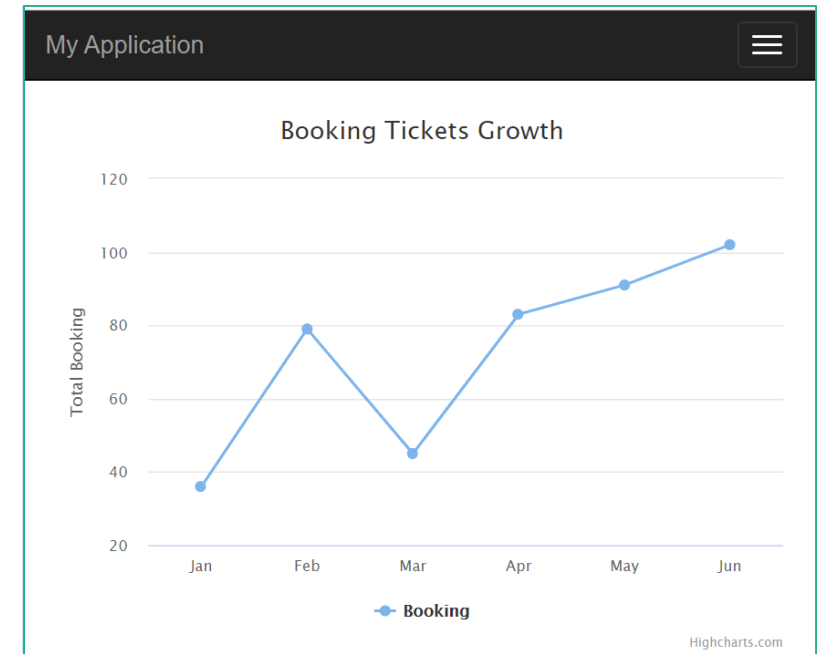
Progress Instalasi Highchart

```
C:\Windows\system32\cmd.exe

C:\xampp\htdocs\go-cinema>composer require miloschuman/yii2-highcharts-widget
Using version ^7.1 for miloschuman/yii2-highcharts-widget
./composer.json has been updated
Loading composer repositories with package information
Updating dependencies (including require-dev)
Package operations: 2 installs, 0 updates, 0 removals
  - Installing bower-asset/highcharts (v7.2.0): Downloading (100%)
  - Installing miloschuman/yii2-highcharts-widget (v7.1.3): Downloading (100%)
Package phpunit/phpunit-mock-objects is abandoned, you should avoid using it. No replacement
was suggested.
Writing lock file
Generating autoload files
```

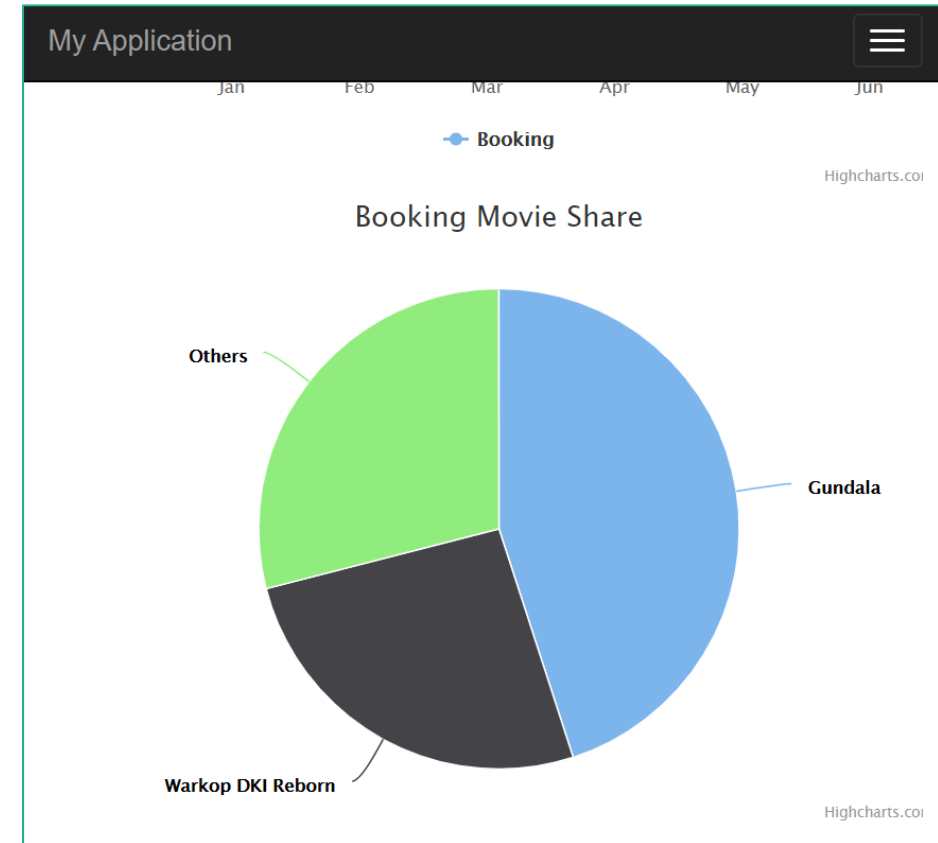
Implementasi Pada View - Line Chart

```
<?php
use miloschuman\highcharts\Highcharts;
echo Highcharts::widget([
    'options' => [
        'chart' => ['type' => 'line' /* column */],
        'title' => ['text' => 'Booking Tickets Growth'],
        'xAxis' => [
            'categories' => ['Jan', 'Feb', 'Mar', 'Apr',
                            'May', 'Jun']
        ],
        'yAxis' => [
            'title' => ['text' => 'Total Booking']
        ],
        'series' => [
            ['name' => 'Booking', 'data' => [36, 79, 45, 83, 91, 102]],
        ]
    ],
]);
```



Implementasi Pada View - Pie Chart

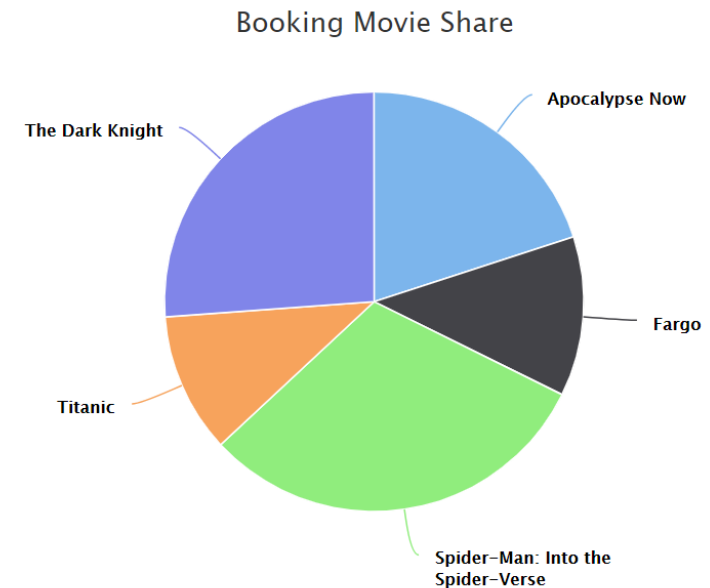
```
<?php
use miloschuman\highcharts\Highcharts;
echo Highcharts::widget([
    'options' => [
        'title' => ['text' => 'Booking Movie Share'],
        'series' => [
            [
                'type' => 'pie',
                'name' => 'Movie',
                'data' => [
                    ['Gundala', 45],
                    ['Warkop DKI Reborn', 26],
                    ['Others', 29]
                ]
            ]
        ]
    ],
]);
```



Dynamic Data Chart

```
public function actionCharts()
{
    $movies = \app\models\Movie::find()
        ->select('title, id AS sales')
        ->asArray()
        ->orderBy('RAND()')
        ->limit(5)
        ->all();
    $movie_data = [];
    foreach($movies as $movie){
        $movie_data[] = [
            $movie['title'], (int)$movie['sales'],
        ];
    }
    return $this->render('charts', [
        'movie_data' => $movie_data
    ]);
}
```

```
'series' => [
    [
        'type' => 'pie',
        'name' => 'Movie',
        'data' => $movie_data,
    ],
],
```



Export dan Import Data

Extension Import & Export Excel

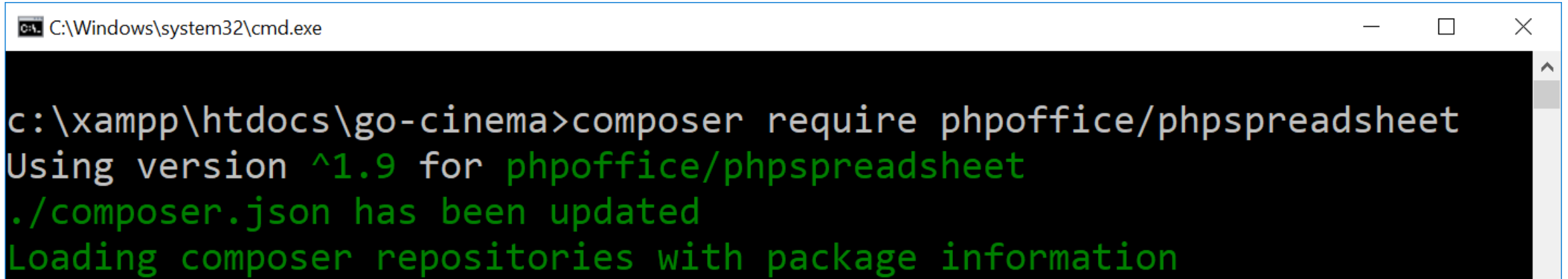
- <https://phpspreadsheet.readthedocs.io/en/latest/>

File formats supported

Format	Reading	Writing
Open Document Format/OASIS (.ods)	✓	✓
Office Open XML (.xlsx) Excel 2007 and above	✓	✓
BIFF 8 (.xls) Excel 97 and above	✓	✓
BIFF 5 (.xls) Excel 95	✓	
SpreadsheetML (.xml) Excel 2003	✓	
Gnumeric	✓	
HTML	✓	✓
SYLK	✓	
CSV	✓	✓
PDF (using either the TCPDF, Dompdf or mPDF libraries, which need to be installed separately)		✓

Instalasi

- Melalui composer
composer require phpooffice/phpspreadsheet

A screenshot of a Windows command prompt window. The title bar at the top shows the path 'C:\Windows\system32\cmd.exe' and standard window controls (minimize, maximize, close). The command prompt has a black background with white and green text. The command entered is 'c:\xampp\htdocs\go-cinema>composer require phpooffice/phpspreadsheet'. The output shows 'Using version ^1.9 for phpooffice/phpspreadsheet' and './composer.json has been updated' in green. The next line shows 'Loading composer repositories with package information' in green.

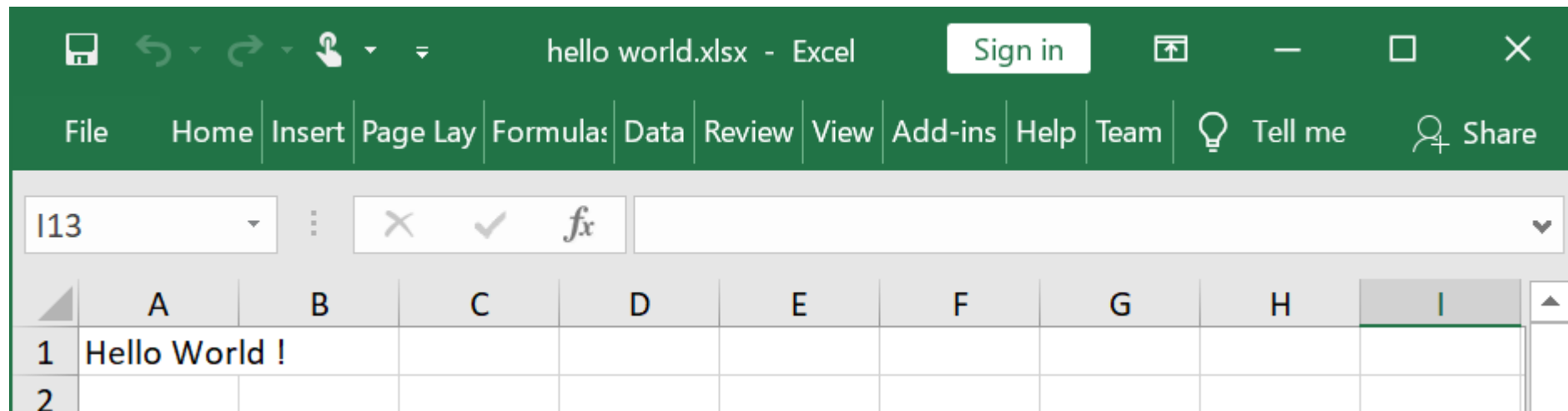
```
C:\Windows\system32\cmd.exe

c:\xampp\htdocs\go-cinema>composer require phpooffice/phpspreadsheet
Using version ^1.9 for phpooffice/phpspreadsheet
./composer.json has been updated
Loading composer repositories with package information
```

Hello world menggunakan PHPSpreadsheet

- Buat method actionExport di SiteController

```
$spreadsheet = new \PhpOffice\PhpSpreadsheet\Spreadsheet();  
$sheet = $spreadsheet->getActiveSheet();  
$sheet->setCellValue('A1', 'Hello World !');  
$writer = new \PhpOffice\PhpSpreadsheet\Writer\Xlsx($spreadsheet);  
$writer->save('hello world.xlsx');
```



Download file

```
public function actionExport()
{
    $spreadsheet = new \PhpOffice\PhpSpreadsheet\Spreadsheet();
    $sheet = $spreadsheet->getActiveSheet();
    $sheet->setCellValue('A1', 'Hello World !');

    $writer = new \PhpOffice\PhpSpreadsheet\Writer\Xlsx($spreadsheet);
    // $writer->save('hello world.xlsx');

    header('Content-Type: application/vnd.openxmlformats-officedocument
.spreadsheetml.sheet');
    header('Content-Disposition: attachment;filename="_export2.xlsx"');
    header('Cache-Control: max-age=0');
    $writer->save('php://output');
    exit;
}
```

Export Data Menggunakan Template

- Buat template excel di @app/templates/movie.xlsx

18			
	A	B	C
1		DATA FILM	
2			
3	NO	JUDUL	GENRE
4			
5			

Method actionExport di MovieController

```
public function actionExport()  
{  
    $movies = Movie::find()->all();  
    $template = \Yii::getAlias("@webroot") . "/templates/movie.xlsx";  
    $spreadsheet = \PhpOffice\PhpSpreadsheet\IOFactory::load($template);  
    $worksheet = $spreadsheet->getActiveSheet();  
    $baserow = 3;  
    $no = 1;  
    foreach($movies as $movie){  
        $row = $no + $baserow;  
        $worksheet->getCell('A' . $row)->setValue($no);  
        $worksheet->getCell('B' . $row)->setValue($movie->title);  
        $worksheet->getCell('C' . $row)->setValue($movie->genre);  
        $no++;  
    }  
    $writer = \PhpOffice\PhpSpreadsheet\IOFactory::createWriter($spreadsheet, 'Xlsx');  
    header('Content-Type: application/vnd.openxmlformats-officedocument.spreadsheetml.sheet');  
    header('Content-Disposition: attachment;filename="movies.xlsx"');  
    header('Cache-Control: max-age=0');  
    $writer->save('php://output');  
    exit;  
}
```

Hasil Export

	A	B	C	D
1	DATA FILM			
2				
3	NO	JUDUL	GENRE	
4	1	Boonie Bears The Big Shrink	ANIMATION	
5	2	Weathering With You	ANIMATION	
6	3	Warning Do Not Play	HORROR	
7	4	Dream Girl	COMEDY	
8	5	Hayya The Power of Love	DRAMA	
9	6	Pal Pal Dil Ke Paas	DRAMA	
10	7	Horas Amang Tiga Bulan Untuk Selamanya	DRAMA	
11	8	6,9 Detik	DRAMA	
12	9	Warkop DKI Reborn	COMEDY	
13	10	Siccin 6	HORROR	

Impor Data

- Mengimpor data yang dimaksudkan di sini adalah memasukkan data teks yang berasal dari *file* berformat *spreadsheet*/tabel (xls/xlsx/ods) ke tabel di basis data.
- Adakalanya pengguna telah memiliki data berformat *spreadsheets*, sehingga jika pada aplikasi tersedia fitur untuk mengimpor data tentu akan memudahkan pengguna untuk memasukkan data.

Impor Data

- Siapkan data excel yang akan diimpor

	A	B	C
1	NO	JUDUL	GENRE
2	1	Boonie Bears The Big Shrink	ANIMATION
3	2	Weathering With You	ANIMATION
4	3	Warning Do Not Play	HORROR
5			

Method actionImport

```
public function actionImport()
{
    $model = new \yii\base\DynamicModel([
        'fileImport' => 'File Import',
    ]);
    $model->addRule(['fileImport'], 'required');
    $model->addRule(['fileImport'], 'file', ['extensions'=>'xlsx']);

    if (Yii::$app->request->post()) {
        // kodingan import disini
    }
    return $this->render('import',[
        'model' => $model,
    ]);
}
```

View import.php

```
<?php
use yii\widgets\ActiveForm;
use yii\helpers\Html;
?>
<h1>Import Data</h1>
<?php
$form = ActiveForm::begin([
    'options' => ['enctype'=> 'multipart/form-data'],
]) ?>
<?= $form->field($model, 'fileImport')->fileInput() ?>
<?= Html::submitButton('Import', ['class'=>'btn btn-primary']) ?>
<?php ActiveForm::end() ?>
```

Modifikasi Method actionImport

```
if (Yii::$app->request->post()) {  
    $model->fileImport = \yii\web\UploadedFile::getInstance($model, 'fileImport');  
    if ($model->fileImport && $model->validate()) {  
        $reader = new \PhpOffice\PhpSpreadsheet\Reader\Xlsx();  
        $spreadsheet = $reader->load($model->fileImport->tempName);  
        $sheetData = $spreadsheet->getActiveSheet()->toArray();  
        $baseRow = 2;  
        while(!empty($sheetData[$baseRow]['1'])){  
            $movie = new Movie();  
            $movie->title = (string)$sheetData[$baseRow]['1'];  
            $movie->genre = (string)$sheetData[$baseRow]['2'];  
            $model->save();  
            $baseRow++;  
        }  
    }  
    Yii::$app->session->setFlash('success', 'berhasil dihapus');  
    return $this->redirect(['index']);  
}
```

Terima Kasih