# PRAKTIKUM PEMROGRAMAN FRAMEWORK

## MODUL 10 Laravel Third Party Packages



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### MODUL 10 LARAVEL THIRD PARTY PACKAGES

Pada praktikum kali ini kita akan melanjutkan belajar tentang bagaimana menerapkan package-package tambahan pada project laravel kita. Package tambahan yang diberikan pada praktikum ini adalah Laravel DataTables, Laravel Sweet Alert, Laravel Exce dan Laravel DomPdf.

Seluruh package akan diterapkan pada project laravel yang telah dibuat pada praktikum modul 9.

#### 1. Penerapan Laravel DataTables

 Edit file EmployeeSeeder untuk dapat menambahkan data dummy seperti di bawah ini. Data dummy ditambahkan menjadi sebanyak 200.

Jalankan file seeder tersebut via Artisan seperti di bawah ini.

```
php artisan db:seed --class=EmployeeSeeder
```

#### 1.1 Basic DataTables

• Install packages Laravel DataTables via composer

```
composer require yajra/laravel-datatables-oracle
```

Install aset-aset DataTables yang dibutuhkan via NPM

```
npm install datatables.net-bs5 datatables.net-buttons-bs5
```

 Registrasikan aset-aset DataTables pada file /resources/js/app.js seperti yang terlihat di bawah ini.

```
import './bootstrap';
import 'datatables.net-bs5';
import 'datatables.net-buttons-bs5';
import.meta.glob(["../images/**"]);
```

 Registrasikan aset-aset DataTables pada file /resources/sass/app.scss seperti yang terlihat di bawah ini.

```
// Bootstrap
@import 'bootstrap/scss/bootstrap';
@import "bootstrap-icons/font/bootstrap-icons.css";

// DataTables
@import "datatables.net-bs5/css/dataTables.bootstrap5.css";
@import "datatables.net-buttons-bs5/css/buttons.bootstrap5.css";
```

Import jQuery pada file /resources/js/bootstrap.js seperti yang terlihat di bawah ini.

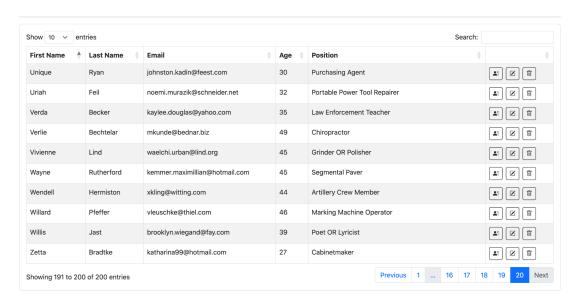
```
import 'bootstrap';
import axios from 'axios';
window.axios = axios;
window.axios.defaults.headers.common['X-Requested-With'] = 'XMLHttpRequest';
import $ from 'jquery';
window.$ = $;
```

 Buka file base layout pada /resources/views/layouts/app.blade.php kemudian tambahkan blade directive stack() dengan nama "scripts" seperti di bawah ini.

 Buka file view pada /resources/views/employee/index.blade.php kemudian gunakan block blade directive push() untuk menambahkan kode program seperti di bawah ini.

Berikan atribut id dengan nilai "employeeTable" pada elemen tag seperti kode program di bawah ini.

Akses halaman Employee List via browser, jika berhasil akan muncul tampilan
 DataTables untuk data employee.



#### 1.2 Server-side Processing DataTables

• Buat Route baru pada /routes/web.php dengan URI /getEmployees, mengarahkan ke method getData() pada EmployeeController seperti kode program di bawah ini.

```
Route::get('getEmployees', [EmployeeController::class,
  'getData'])->name('employees.getData');
```

Buat method getData() pada EmployeeController seperti di bawah ini.

```
return view('employee.actions', compact('employee'));
})
->toJson();
}
```

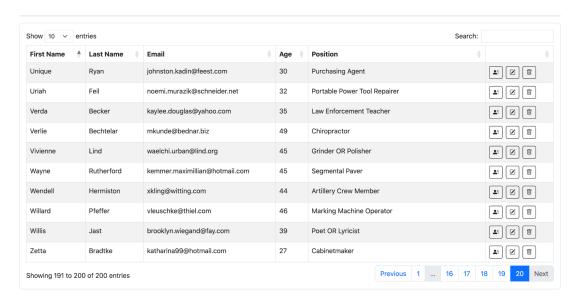
 Sesuaikan method index() pada EmployeeController seperti kode program di bawah ini. Query eloquent untuk mengambil data employee sudah diperlukan lagi karna sudah digantikan proses nya pada method getData().

 Buka file view pada /resources/views/employee/index.blade.php kemudian sesuaikan kode program pada bagian tag nya seperti di bawah ini.
 Perulangan yang ada pada tag dihapus karna data akan diload secara asynchronous dan ditangani oleh DataTable.

• Buka file view pada /resources/views/employee/index.blade.php kemudian sesuaikan script DataTable nya seperti di bawah ini.

```
searchable: false },
                    { data: "firstname", name: "firstname" },
                    { data: "lastname", name: "lastname" },
                    { data: "email", name: "email" },
                      data: "age", name: "age" },
                      data: "position.name", name: "position.name" },
                      data: "actions", name: "actions", orderable: false,
searchable: false },
                ],
                order: [[0, "desc"]],
                lengthMenu: [
                    [10, 25, 50, 100, -1],
                    [10, 25, 50, 100, "All"],
            });
        });
    </script>
@endpush
```

Akses halaman Employee List via browser, jika berhasil akan muncul tampilan
 DataTables untuk data employee dengan teknik server-side processing.



#### 2. Penerapan Laravel Sweet Alert

Install package SweetAlert via composer

```
composer require realrashid/sweet-alert
```

 Buka file base layout pada /resources/views/layouts/app.blade.php kemudian tambahkan blade directive include() untuk menerapkan package SweetAlert seperti di bawah ini. Letakkan seteah vite() dan sebelum stack().

```
<!DOCTYPE html>
```

Publish aset dari SweetAlert via Artisan.

```
php artisan sweetalert:publish
```

Buka EmployeeController dan letakkan SweetAlert pada method store(), update() dan destroy().

```
use RealRashid\SweetAlert\Facades\Alert;
public function store(Request $request)
{
    ...
    Alert::success('Added Successfully', 'Employee Data Added Successfully.');
    return redirect()->route('employees.index');
}
```

```
use RealRashid\SweetAlert\Facades\Alert;

public function update(Request $request, string $id)
{
    ...
    Alert::success('Changed Successfully', 'Employee Data Changed Successfully.');
    return redirect()->route('employees.index');
}
```

```
use RealRashid\SweetAlert\Facades\Alert;
public function destroy(string $id)
{
    ...
```

```
Alert::success('Deleted Successfully', 'Employee Data Deleted
Successfully.');
   return redirect()->route('employees.index');
}
```

• Buka file view pada /resources/views/employee/actions.blade.php kemudian sesuaikan kode program pada bagian tag <button>. Tambahkan class "btn-delete" dan atribut "data-name" seperti di bawah ini.

 Buka file view pada /resources/views/employee/index.blade.php kemudian sesuaikan kode program pada bagian tag . Tambahkan class "datatable" seperti di bawah ini.

 Buka file view pada /resources/views/employee/index.blade.php kemudian tambahkan kode program di bawah ini pada block blade directive push() seperti di bawah ini.

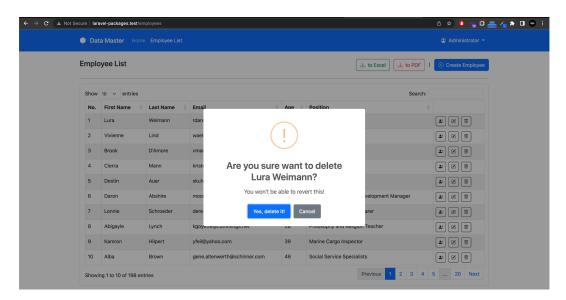
```
@push('scripts')
    <script type="module">
        $(document).ready(function() {
           $(".datatable").on("click", ".btn-delete", function (e) {
                e.preventDefault();
                var form = $(this).closest("form");
                var name = $(this).data("name");
                Swal.fire({
                    title: "Are you sure want to delete\n" + name + "?",
                    text: "You won't be able to revert this!",
                    icon: "warning",
                    showCancelButton: true,
                    confirmButtonClass: "bg-primary",
                    confirmButtonText: "Yes, delete it!",
                }).then((result) => {
                    if (result.isConfirmed) {
```

```
form.submit();
}
});
});

});
</script>
@endpush
```

 Sesuaikan method index() pada EmployeeController seperti kode program di bawah ini. Panggil method confirmDelete() milik SweetAlert.

 Akses Fitur Create, Edit dan Delete Employee via browser, jika berhasil akan muncul tampilan popup window dari SweetAlert sebagai feedback sistem untuk proses yang sedang dilakukan oleh user. Contoh tampilannya seperti gambar di bawah ini.



#### 3. Penerapan Laravel Excel

Install Laravel Excel via Composer.

```
composer require maatwebsite/excel
```

Publish file konfigurasi dengan menjalankan command script seperti di bawah ini.

```
\label{thm:php} \begin{tabular}{ll} php artisan vendor: publish --provider = "Maatwebsite\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Excel\Exce
```

 Buka file view pada /resources/views/employee/index.blade.php kemudian buat button untuk fitur export data employee menjadi Excel. Sesuaikan bagian kode program seperti di bawah ini.

```
<div class="row mb-0">
   <div class="col-lg-9 col-x1-6">
      <h4 class="mb-3">{{ $pageTitle }}</h4>
   <div class="col-lg-3 col-x1-6">
      <a href="{{ route('employees.exportExcel') }}" class="btn</pre>
btn-outline-success">
               <i class="bi bi-download me-1"></i> to Excel
         |
         <a href="{{ route('employees.create') }}" class="btn</pre>
btn-primary">
               <i class="bi bi-plus-circle me-1"></i> Create Employee
            </a>
         </div>
```

 Buat Route baru pada /routes/web.php dengan URI /exportExcel, mengarahkan ke method exportExcel() pada EmployeeController seperti kode program di bawah ini.

```
Route::get('exportExcel', [EmployeeController::class,
'exportExcel'])->name('employees.exportExcel');
```

Buat file Export dengan nama EmployeesExport via Artisan seperti di bawah ini.
 Diarahkan kepada model Employee.

```
php artisan make:export EmployeesExport --model=Employee
```

Edit atau ubah file EmployeesExport, sesuaikan seperti di bawah ini.

```
namespace App\Exports;

use App\Models\Employee;
use Illuminate\Contracts\View\View;
use Maatwebsite\Excel\Concerns\FromView;
use Maatwebsite\Excel\Concerns\ShouldAutoSize;
use Maatwebsite\Excel\Concerns\WithStyles;
use PhpOffice\PhpSpreadsheet\Worksheet;

class EmployeesExport implements FromView, WithStyles, ShouldAutoSize
```

• Buat file view baru dengan nama **export\_excel.blade.php** pada direktori /resources/views/employee. Isi dengan kode program seperti di bawah ini.

```
No.
       First Name
       Last Name
       Email
       Age
       Position
     </thead>
     @foreach ($employees as $index => $employee)
          {{ $index + 1 }}
          {{ $employee->firstname }}
          {{ $employee->lastname }}
          {{ $employee->email }}
          {{ $employee->age }}
          {{ $employee->position->name }}
       @endforeach
```

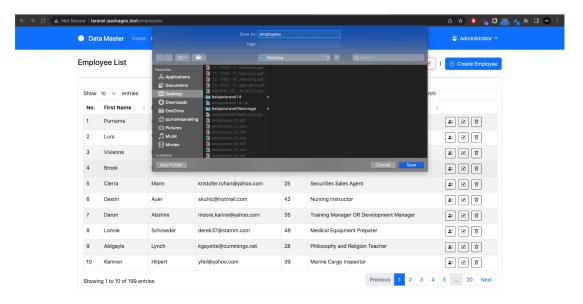
• Buat method **exportExcel()** pada **EmployeeController** seperti kode program di bawah ini.

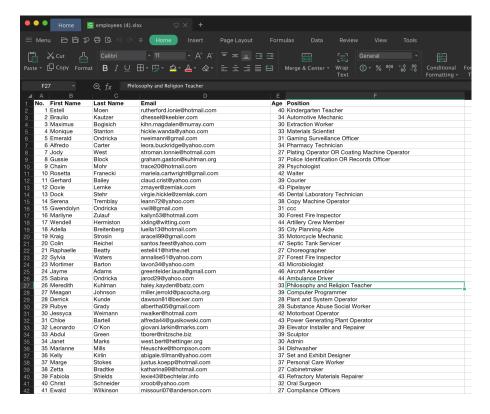
```
use Maatwebsite\Excel\Facades\Excel;
use App\Exports\EmployeesExport;

public function exportExcel()
{
    return Excel::download(new EmployeesExport, 'employees.xlsx');
```

}

 Akses halaman Employee List via browser, kemudian klik button "to Excel" untuk meng-export data employee ke dalam bentuk file Excel.





#### 4. Penerapan Laravel DomPdf

• Install Laravel DomPdf via Composer.

composer require barryvdh/laravel-dompdf

• Publish file konfigurasi dengan menjalankan command script seperti di bawah ini.

```
php artisan vendor:publish --provider="Barryvdh\DomPDF\ServiceProvider"
```

 Buka file view pada /resources/views/employee/index.blade.php kemudian buat button untuk fitur export data employee menjadi PDF. Sesuaikan bagian kode program seperti di bawah ini.

```
<div class="row mb-0">
  <div class="col-lg-9 col-x1-6">
      <h4 class="mb-3">{{ $pageTitle }}</h4>
  </div>
  <div class="col-lg-3 col-xl-6">
      <a href="{{ route('employees.exportExcel') }}" class="btn</pre>
btn-outline-success">
               <i class="bi bi-download me-1"></i> to Excel
            </a>
         <a href="{{ route('employees.exportPdf') }}" class="btn</pre>
btn-outline-danger">
               <i class="bi bi-download me-1"></i> to PDF
            </a>
         |
         <a href="{{ route('employees.create') }}" class="btn</pre>
btn-primary">
               <i class="bi bi-plus-circle me-1"></i> Create Employee
         </div>
</div>
```

 Buat Route baru pada /routes/web.php dengan URI /exportPdf, mengarahkan ke method exportPdf() pada EmployeeController seperti kode program di bawah ini.

```
Route::get('exportPdf', [EmployeeController::class,
'exportPdf'])->name('employees.exportPdf');
```

Buat file view baru dengan nama export\_pdf.blade.php pada direktori
 /resources/views/employee. Isi dengan kode program seperti di bawah ini.

```
font-size: 12px;
     .table {
       border-collapse: collapse !important;
       width: 100%;
     .table-bordered th,
     .table-bordered td {
       padding: 0.5rem;
       border: 1px solid black !important;
  <h1>Employee List</h1>
  No.
          First Name
          Last Name
          Email
          Age
          Position
        </thead>
       @foreach ($employees as $index => $employee)
             {{ $index + 1 }}
             {{ $employee->firstname }}
             {{ $employee->lastname }}
             {{ $employee->email }}
             {{ $employee->position->name }}
          @endforeach
     </body>
```

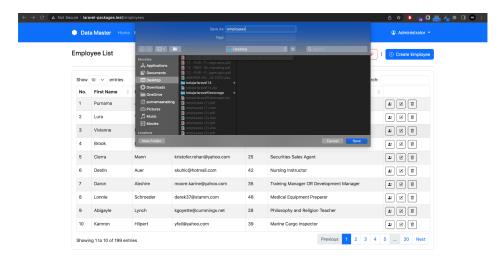
 Buat method exportPdf() pada EmployeeController seperti kode program di bawah ini.

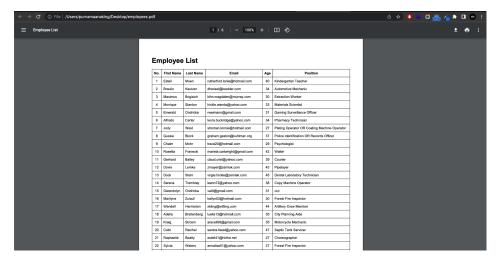
```
use PDF;
use App\Models\Employee;

public function exportPdf()
{
    $employees = Employee::all();
```

```
$pdf = PDF::loadView('employee.export_pdf', compact('employees'));
return $pdf->download('employees.pdf');
}
```

 Akses halaman Employee List via browser, kemudian klik button "to PDF" untuk meng-export data employee ke dalam bentuk file PDF.





#### 5. Memindahkan dan Memisahkan Kode Javascript

- Kita dapat memindahkan kode javascript yang ada pada file view kita dan kita kelompokkan dengan file-file javascript pada project laravel kita.
- Buat file employee.js pada direktori /resources/js/. Hapus blok kode yang ada pada blade directive push() pada file /resources/views/index.blade.php dan pindahkan kode javascript yang ada ke file employee.js. Kode program pada file index.blade.php akan menjadi seperti di bawah ini.

```
<div class="row mb-0">
         <div class="col-lg-9 col-x1-6">
            <h4 class="mb-3">{{ $pageTitle }}</h4>
         </div>
         <div class="col-lg-3 col-x1-6">
            <a href="{{ route('employees.exportExcel') }}" class="btn</pre>
btn-outline-success">
                     <i class="bi bi-download me-1"></i> to Excel
                  </a>
               <a href="{{ route('employees.exportPdf') }}" class="btn</pre>
btn-outline-danger">
                     <i class="bi bi-download me-1"></i> to PDF
               |
               <a href="{{ route('employees.create') }}" class="btn</pre>
btn-primary">
                     <i class="bi bi-plus-circle me-1"></i> Create
Employee
                  </a>
               </div>
     </div>
     <hr>>
      <div class="table-responsive border p-3 rounded-3 mb-5">
         <table class="table table-bordered table-hover table-striped mb-0"
bg-white datatable" id="employeeTable">
               ID
                  No.
                  First Name
                  Last Name
                  Email
                  Age
                  Position
                  </thead>
         </div>
  </div>
@endsection
```

• Kode program pada file **employee.js** akan menjadi seperti di bawah ini.

```
$(function() {
    $("#employeeTable").DataTable({
        serverSide: true,
```

```
processing: true,
        ajax: "/getEmployees",
        columns: [
            { data: "id", name: "id", visible: false },
            { data: "DT_RowIndex", name: "DT_RowIndex", orderable: false,
searchable: false },
            { data: "firstname", name: "firstname" },
            { data: "lastname", name: "lastname" },
            { data: "email", name: "email" },
            { data: "age", name: "age" },
            { data: "position.name", name: "position.name" },
            { data: "actions", name: "actions", orderable: false, searchable:
        ],
        order: [[0, "desc"]],
        lengthMenu: [
            [10, 25, 50, 100, -1],
            [10, 25, 50, 100, "All"],
        ],
    });
    $(".datatable").on("click", ".btn-delete", function (e) {
        e.preventDefault();
        var form = $(this).closest("form");
        var name = $(this).data("name");
        Swal.fire({
            title: "Are you sure want to delete\n" + name + "?",
            text: "You won't be able to revert this!",
            icon: "warning",
            showCancelButton: true,
            confirmButtonClass: "bg-primary",
            confirmButtonText: "Yes, delete it!",
        }).then((result) => {
            if (result.isConfirmed) {
                form.submit();
        });
});
```

• Buka file /resources/js/app.js kemudian import file employee.js.

```
import './bootstrap';
import 'datatables.net-bs5';
import 'datatables.net-buttons-bs5';
import './employee';
import.meta.glob(["../images/**"]);
```

 Akses halaman Employee List via browser, jika berhasil seluruh fitur tetap berjalan dengan baik.

#### 6. Tugas

- 1. **Praktekkan** dan **analisis** seluruh poin **praktikum dan latihan** yang ada di atas secara **INDIVIDU**. Infokan URL Repository Github pada laporan praktikum.
- 2. Dokumentasikan seluruhnya (screenshot output) dalam bentuk Laporan Praktikum.
- 3. Kumpulkan Laporan Praktikum (.pdf) yang telah dibuat di dalam praktikum via **E-Learning** paling lambat sebelum jadwal praktikum minggu depan.