
JakSAFE Web Application Technical Documentation

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Document Information

Status	Initial Release	Document Date	20 April 2015
Author	Seno Adiwicaksono K.		

Authorisation

Reviewed By		Date	
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Change History

Version	Date	Authors	Summary of Changes
1.0	20 April 2015	Seno Adiwicaksono K.	Initial release

1 Introduction

1.1 Purpose

The purpose of this document is to give technical information about the JakSAFE web application (webapp) design and implementation.

1.2 Intended Audience

The intended audience of this technical document are the following:

- JakSAFE and JakSERVICE development team

- Future contributors to the project

1.3 Scope

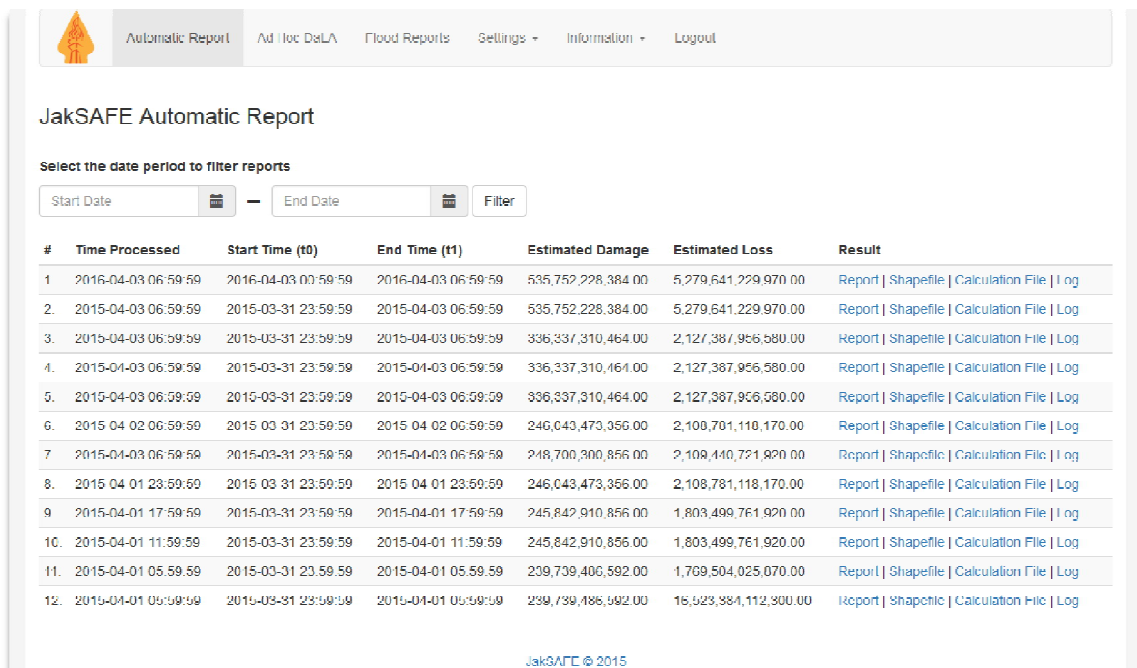
This document will describe the design and implementation of the JakSAFE webapp. To fully comprehend the implementation some basic knowledge is required in the following subjects:

- Python programming
- Django web framework
- MySQL database
- CSS and Javascript
- Linux commands

2 General Overview

2.1 Technologies Used

The JakSAFE webapp is a web based application that serves as the frontend component to the JakSERVICE application. The webapp can be accessed from any modern desktop or mobile web browser. JakSAFE webapp is built using the Python based Django web framework with MySQL database server as the storage backend. All the software components used are open source in nature.



JakSAFE Automatic Report

Select the date period to filter reports

Start Date End Date Filter

#	Time Processed	Start Time (t0)	End Time (t1)	Estimated Damage	Estimated Loss	Result
1.	2016-04-03 06:59:59	2016-04-03 00:59:59	2016-04-03 06:59:59	535,752,228,384.00	5,279,641,229,970.00	Report Shapefile Calculation File Log
2.	2015-04-03 06:59:59	2015-03-31 23:59:59	2015-04-03 06:59:59	535,752,228,384.00	5,279,641,229,970.00	Report Shapefile Calculation File Log
3.	2015-04-03 06:59:59	2015-03-31 23:59:59	2015-04-03 06:59:59	336,337,310,464.00	2,127,387,956,580.00	Report Shapefile Calculation File Log
4.	2015-04-03 06:59:59	2015-03-31 23:59:59	2015-04-03 06:59:59	336,337,310,464.00	2,127,387,956,580.00	Report Shapefile Calculation File Log
5.	2015-04-03 06:59:59	2015-03-31 23:59:59	2015-04-03 06:59:59	336,337,310,464.00	2,127,387,956,580.00	Report Shapefile Calculation File Log
6.	2015-04-02 06:59:59	2015-03-31 23:59:59	2015-04-02 06:59:59	246,043,473,356.00	2,109,701,118,170.00	Report Shapefile Calculation File Log
7.	2015-04-03 06:59:59	2015-03-31 23:59:59	2015-04-03 06:59:59	248,700,300,856.00	2,109,440,721,820.00	Report Shapefile Calculation File Log
8.	2015-04-01 23:59:59	2015-03-31 23:59:59	2015-04-01 23:59:59	246,043,473,356.00	2,109,701,118,170.00	Report Shapefile Calculation File Log
9.	2015-04-01 17:59:59	2015-03-31 23:59:59	2015-04-01 17:59:59	245,842,910,856.00	1,803,499,761,920.00	Report Shapefile Calculation File Log
10.	2015-04-01 11:59:59	2015-03-31 23:59:59	2015-04-01 11:59:59	245,842,910,856.00	1,803,499,761,920.00	Report Shapefile Calculation File Log
11.	2015-04-01 05:59:59	2015-03-31 23:59:59	2015-04-01 05:59:59	209,739,406,592.00	1,769,504,025,070.00	Report Shapefile Calculation File Log
12.	2015-04-01 00:59:59	2015-03-31 23:59:59	2015-04-01 00:59:59	239,739,486,592.00	16,523,384,112,300.00	Report Shapefile Calculation File Log

JakSAFE © 2015

Figure 1 JakSAFE webapp home page

2.2 Features

The following are the features of the JakSAFE webapp:

- Display the summary and download link for automatic and adhoc calculation results
- Settings page for altering the input configuration files for JakSERVICE application
- Static page content management

2.3 Software Components

As of version 1.0 the JakSAFE webapp comprise of the following application/software/library components to provide its functionalities:

No.	Name	Function	Version	Website
1.	Python	Main development language	2.7.6	https://www.python.org/
2.	MySQL	Database server	5.5	https://www.mysql.com/
3.	Django	Web application framework	1.7.5	https://www.djangoproject.com/
4.	Gunicorn	WSGI web server	19.3.0	http://gunicorn.org/
5.	Supervisor	Process monitoring	3.1.3	http://supervisord.org/
6.	Django Extended Flatpages	Django package for static page content management	0.1	https://pypi.python.org/pypi/django-extended-flatpages/0.1
7.	Django CKEditor	Django package that provides a rich text editor	4.4.7	https://pypi.python.org/pypi/django-ckeditor
8.	JQuery	Javascript library	1.11.2	https://jquery.com/
9.	JQuery UI	UI library for JQuery	1.11.2	https://jqueryui.com/
10.	Bootstrap	Frontend CSS framework	3.3.2	http://getbootstrap.com/
11.	Bootstrap Date/Time Picker	Javascript library for date/time picker widget	4.13.28	http://eonasdan.github.io/bootstrap-datetimepicker/

Figure 2 JakSAFE webapp software components

3 Database Schema

3.1 Tables

The following tables are accessed read-only by the JakSAFE webapp. Write operations to these tables are performed by JakSERVICE only:

No.	Table Name	Column Name	Type
1.	auto_calc	id	int(10) primary key, unsigned, auto increment
		t0	datetime
		t1	datetime
		damage	decimal(17,2)
		loss	decimal(17,2)
2.	adhoc_calc	id	int(10) primary key, unsigned, auto increment
		t0	datetime

		t1	datetime
		damage	decimal(17,2)
		loss	decimal(17,2)
3.	fl_event	id	int(10) primary key, unsigned, auto increment
		unit	varchar(255)
		village	varchar(255)
		district	varchar(255)
		rt	varchar(255)
		rw	varchar(255)
		depth	int(10)
		report_time	datetime
		request_time	datetime

Figure 3 Read-only tables for JakSAFE webapp

The following tables are used by Django and its packages:


No.	Table Name
1.	auth_group
2.	auth_group_permissions
3.	auth_permission
4.	auth_user
5.	auth_user_groups
6.	auth_user_user_permissions
7.	django_admin_log
8.	django_content_type
9.	django_flatpage
10.	django_flatpage_sites
11.	django_migrations
12.	django_session
13.	django_site
14.	extended_flatpages_cmsflatpage

Figure 4 Django tables

4 Webapp Pages

4.1 Automatic Report

Page URL	/report/auto (default home page)
Related database tables	auto_calc
Description	Shows the automatic damage and loss assessment calculation results. A date picker widget is available to filter the results based on the Start Date (t0) and End Date (t1).
Screenshot	




<div>  Automatic Report Ad Hoc DaLA Flood Reports Settings Information Logout </div>						
JakSAFE Automatic Report						
Select the date period to filter reports						
<div> <input type="text" value="Start Date"/> <input type="text" value="End Date"/> <input type="button" value="Filter"/> </div>						
#	Time Processed	Start Time (t0)	End Time (t1)	Estimated Damage	Estimated Loss	Result
1.	2016-04-03 06:59:59	2016-04-03 00:59:59	2016-04-03 06:59:59	535,752,228,384.00	5,279,641,229,970.00	Report Shapefile Calculation File Log
2.	2015-04-03 06:59:59	2015-03-31 23:59:59	2015-04-03 06:59:59	535,752,228,384.00	5,279,641,229,970.00	Report Shapefile Calculation File Log
3.	2015-04-03 06:59:59	2015-03-31 23:59:59	2015-04-03 06:59:59	336,337,310,464.00	2,127,387,956,580.00	Report Shapefile Calculation File Log
4.	2015-04-03 06:59:59	2015-03-31 23:59:59	2015-04-03 06:59:59	336,337,310,464.00	2,127,387,956,580.00	Report Shapefile Calculation File Log
5.	2015-04-03 06:59:59	2015-03-31 23:59:59	2015-04-03 06:59:59	336,337,310,464.00	2,127,387,956,580.00	Report Shapefile Calculation File Log
6.	2015-04-02 06:59:59	2015-03-31 23:59:59	2015-04-02 06:59:59	246,043,473,356.00	2,108,781,118,170.00	Report Shapefile Calculation File Log
7.	2015-04-03 06:59:59	2015-03-31 23:59:59	2015-04-03 06:59:59	248,700,300,856.00	2,109,440,721,920.00	Report Shapefile Calculation File Log
8.	2015-04-01 23:59:59	2015-03-31 23:59:59	2015-04-01 23:59:59	246,043,473,356.00	2,108,781,118,170.00	Report Shapefile Calculation File Log
9.	2015-04-01 17:59:59	2015-03-31 23:59:59	2015-04-01 17:59:59	245,842,910,856.00	1,803,499,761,920.00	Report Shapefile Calculation File Log
10.	2015-04-01 11:59:59	2015-03-31 23:59:59	2015-04-01 11:59:59	245,842,910,856.00	1,803,499,761,920.00	Report Shapefile Calculation File Log
11.	2015-04-01 05:59:59	2015-03-31 23:59:59	2015-04-01 05:59:59	239,739,486,592.00	1,769,504,025,870.00	Report Shapefile Calculation File Log
12.	2015-04-01 05:59:59	2015-03-31 23:59:59	2015-04-01 05:59:59	239,739,486,592.00	16,523,384,112,300.00	Report Shapefile Calculation File Log
JakSAFE © 2015						

4.2 Ad Hoc DaLA Report

Page URL	/report/adhoc/
Related database tables	adhoc_calc
Description	Shows the adhoc damage and loss assessment calculation results. A date/time picker widget is available to calculate and generate a report based on the Start Date (t0) and End Date (t1). To be able to generate the report the user must be logged in first.
Screenshot	

4.3 Flood Reports

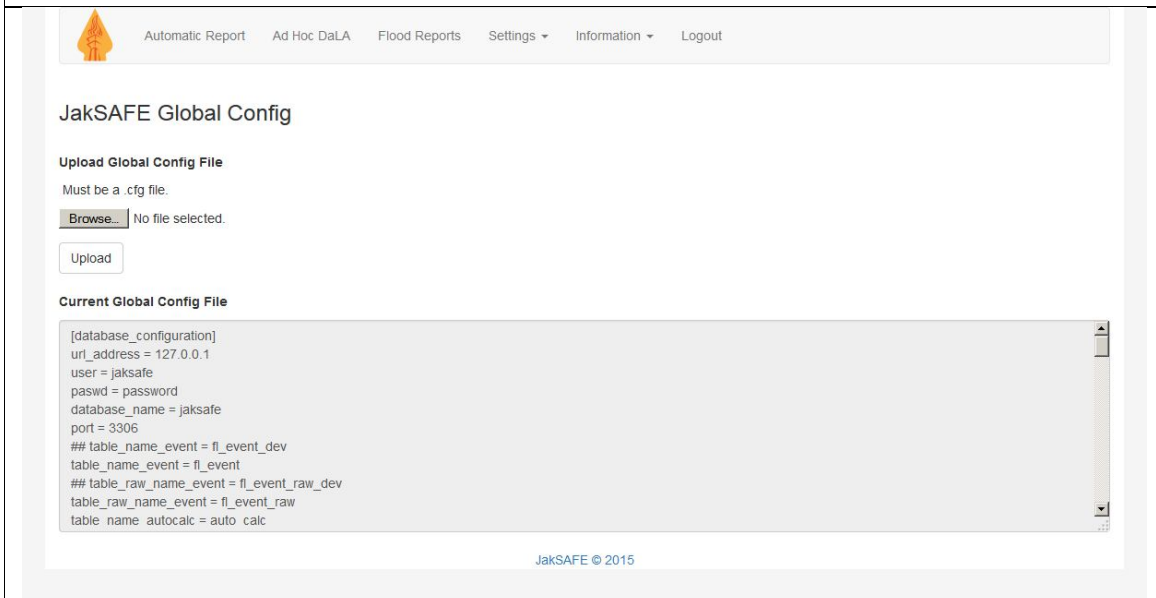
Page URL	/report/flood/
Related database tables	fl_event
Description	Shows the flood reports retrieved from the DIMS System. A date/time picker widget is available to filter the reports based on the request time (the time the report was retrieved).
Screenshot	

 Automatic Report Ad Hoc DaLA Flood Reports Settings ▾ Information ▾ Logout								
JakSAFE Flood Reports								
Select the date period to filter reports								
<div> <div>Report Date Start</div> <div>  </div> <div>—</div> <div>Report Date End</div> <div>  </div> <div>Filter</div> </div>								
Next →								
#	Unit	Village	District	RT	RW	Depth	Report Time	Request Time
1.	3171100002001000	SETIA BUDI	KUNINGAN TIMUR	1	150		2015-04-24 22:06:03	2015-04-24 23:59:59
2.	3171070003001000	MAMPANG PRAPATAN	TEGAL PARANG	1	150		2015-04-24 22:04:01	2015-04-24 23:59:59
3.	3171070003002000	MAMPANG PRAPATAN	TEGAL PARANG	2	150		2015-04-24 22:01:59	2015-04-24 23:59:59
4.	3173030002006000	SENEN	PASEBAN	6	150		2015-04-24 21:59:57	2015-04-24 23:59:59
5.	3172100002008000	MATRAMAN	PAL MERIEM	8	150		2015-04-24 21:57:55	2015-04-24 23:59:59
6.	3175040005014000	KOJA	RAWABADAK UTARA	14	150		2015-04-24 21:55:53	2015-04-24 23:59:59
7.	3173020001002000	MENTENG	MENTENG	2	150		2015-04-24 21:53:51	2015-04-24 23:59:59
8.	3173020002005000	MENTENG	PEGANGSAAN	5	150		2015-04-24 21:51:49	2015-04-24 23:59:59
9.	3172100002001000	MATRAMAN	PAL MERIEM	1	150		2015-04-24 21:49:47	2015-04-24 23:59:59
10.	3171070004005000	MAMPANG PRAPATAN	MAMPANG PRAPATAN	5	150		2015-04-24 21:47:45	2015-04-24 23:59:59

4.4 Settings >> JakSERVICE Global Config

Page URL	/report/global_config/
Related database tables	-
Description	Shows the global configuration file that dictates the general operation of the JakSERVICE application. A form is available to allow the user to upload a new .cfg file (login required).

Screenshot

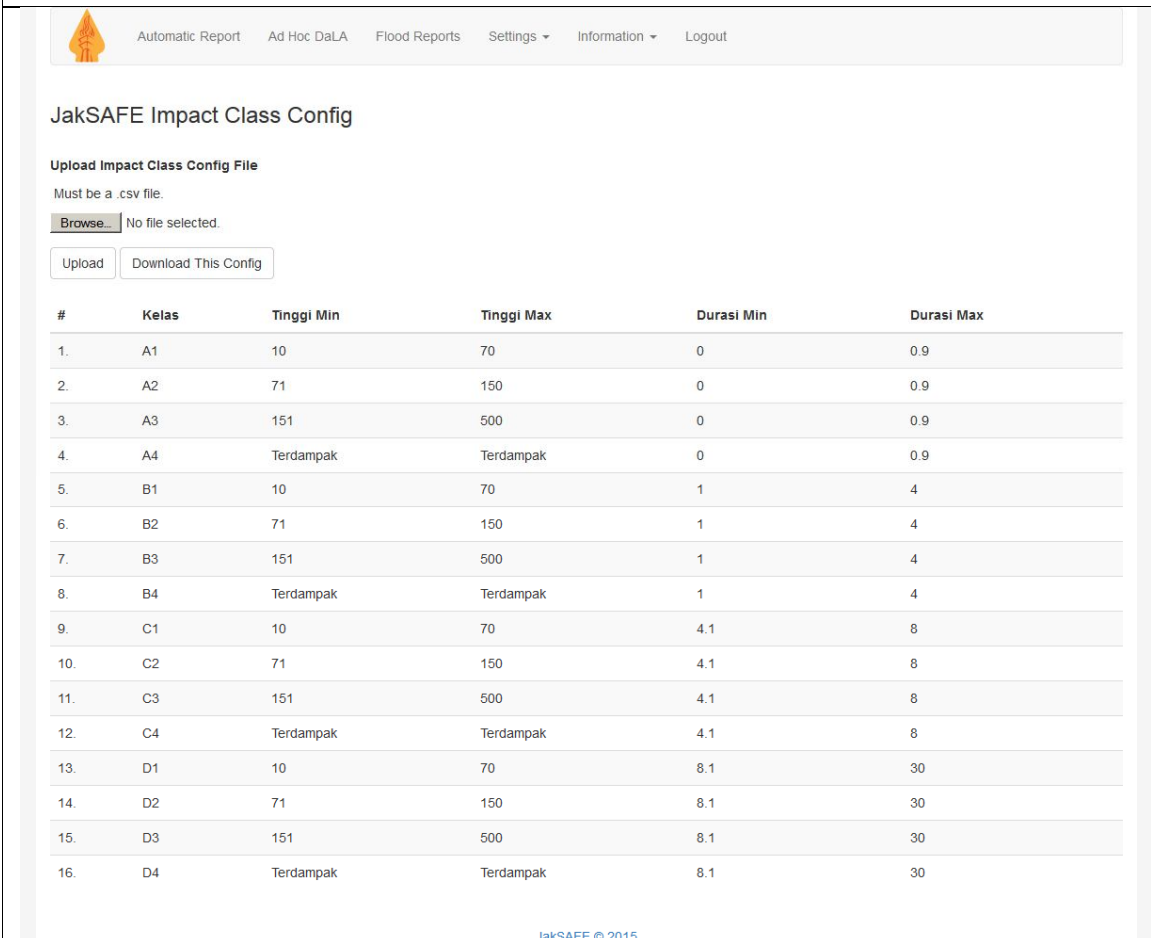
	
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4.5 Settings >> Impact Class Config

Page URL	/report/impact_config/
Related database tables	-
Description	Shows the impact class configuration file that affects the calculation

produced by the JakSERVICE application. A form is available to allow the user to upload a new .csv file (login required). A link is also available to download the file.

Screenshot



#	Kelas	Tinggi Min	Tinggi Max	Durasi Min	Durasi Max
1.	A1	10	70	0	0.9
2.	A2	71	150	0	0.9
3.	A3	151	500	0	0.9
4.	A4	Terdampak	Terdampak	0	0.9
5.	B1	10	70	1	4
6.	B2	71	150	1	4
7.	B3	151	500	1	4
8.	B4	Terdampak	Terdampak	1	4
9.	C1	10	70	4.1	8
10.	C2	71	150	4.1	8
11.	C3	151	500	4.1	8
12.	C4	Terdampak	Terdampak	4.1	8
13.	D1	10	70	8.1	30
14.	D2	71	150	8.1	30
15.	D3	151	500	8.1	30
16.	D4	Terdampak	Terdampak	8.1	30

4.6 Settings >> Assumptions Config

Page URL	/report/assumptions_config/
Related database tables	-
Description	Shows the assumptions configuration files that affects the calculation produced by the JakSERVICE application. A form is available to allow the user to upload a new .csv file (login required). A link is also available to download each of the files.
Screenshot	

Upload 'Assumptions Damage' Config File

Must be a .csv file.

No file selected

Upload Download This Config

Upload 'Assumptions Loss' Config File

Must be a .csv file.

No file selected

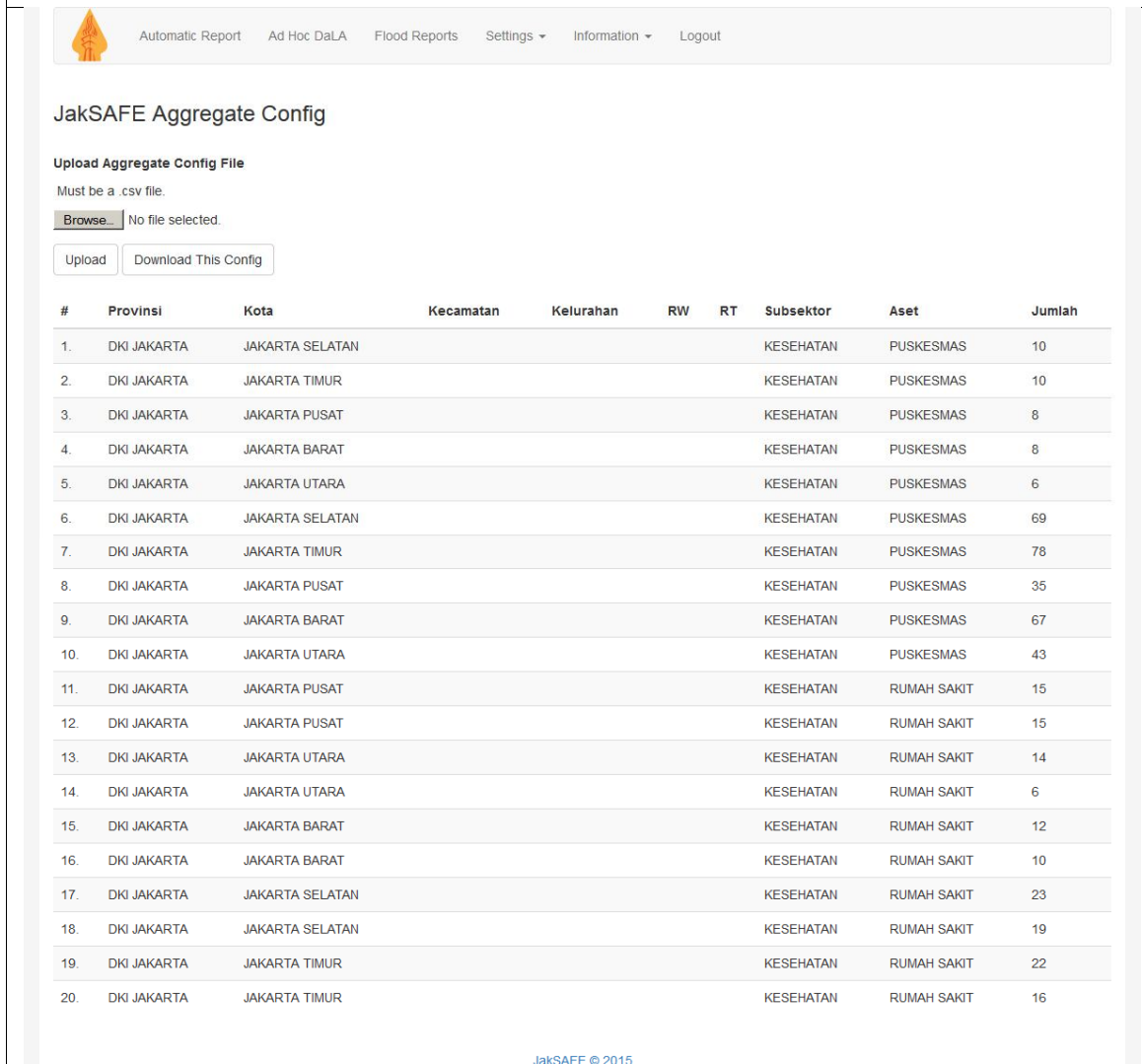
Upload Download This Config

Sizes	Assets	A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D4	
1	PESTABAN TAMBAK	200000	2000000	200000	200000	200000	200000	200000	200000	200000	200000	200000	200000	200000	200000	200000	200000
2	PERDAGANGAN PASAR TRADISIONAL	1760000000	1760000000	1760000000	1760000000	7040000000	7040000000	7040000000	7040000000	14880000000	14880000000	14880000000	14880000000	26400000000	26400000000	26400000000	
3	PERDAGANGAN MAL	17000000	2050000000	17000000	2050000000	17000000	2050000000	17000000	2050000000	82000000000	16400000000	16400000000	16400000000	307500000000	307500000000	307500000000	
4	PERDAGANGAN KURIR	17000000	17000000	17000000	17000000	17000000	17000000	17000000	17000000	13000000	13000000	13000000	13000000	24000000000	24000000000	24000000000	
5	PERDAGANGAN ROTARI	33000000	33000000	33000000	33000000	1200000000	1200000000	1200000000	1200000000	2640000000	2640000000	2640000000	2640000000	49500000000	49500000000	49500000000	
6	PERDAGANGAN JUAL - BELI	12000000	12000000	12000000	12000000	40000000	40000000	40000000	40000000	96000000	96000000	96000000	96000000	1800000000	1800000000	1800000000	
7	PERDAGANGAN MINIMARKET	33000000	33000000	33000000	33000000	1200000000	1200000000	1200000000	1200000000	2640000000	2640000000	2640000000	2640000000	49500000000	49500000000	49500000000	
8	INDUSTRI PABRIK	1510000000	1510000000	1510000000	1510000000	6040000000	6040000000	6040000000	6040000000	12080000000	12080000000	12080000000	12080000000	21400000000	21400000000	21400000000	
9	INDUSTRI PERKANTORAN	5800000	5800000	5800000	5800000	232000000	232000000	232000000	232000000	46400000	46400000	46400000	46400000	81200000	81200000	81200000	
10	INDUSTRI PABRIK KECIL	2100000	2100000	2100000	2100000	8400000	8400000	8400000	8400000	16800000	16800000	16800000	16800000	28400000	28400000	28400000	
11	INDUSTRI USAHA MIKRO	350000	350000	350000	350000	1400000	1400000	1400000	1400000	2800000	2800000	2800000	2800000	4800000	4800000	4800000	
12	FINANSIATA HOTEL	50650856	50650856	50650856	50650856	23223452	23223452	23223452	23223452	46470864	46470864	46470864	46470864	81282412	81282412	81282412	
13	KAWASHTA OBJEK VISITA	576101887	576101887	576101887	576101887	230407548	230407548	230407548	230407548	460815068	460815068	460815068	460815068	805626418	805626418	805626418	
14	PERUMAHAN RUAH TERANG	50000	70000	100000	0	100000	120000	150000	100000	200000	230000	300000	120000	250000	500000	200000	
15	PERUMAHAN RUAH TERANG	100000	300000	250000	100000	300000	300000	300000	300000	250000	300000	600000	300000	400000	600000	400000	
16	KEMAHATAN APTIK	5000000	20000000	30000000	25000000	75000000	40000000	60000000	75000000	150000000	600000000	800000000	1500000000	3000000000	8000000000	2000000000	
17	KEMAHATAN RUAH TERANG	100000000	100000000	100000000	100000000	400000000	400000000	400000000	400000000	1600000000	1600000000	1600000000	1600000000	2500000000	2500000000	2500000000	
18	KEMAHATAN PUSKEHAT	20000000	100000000	200000000	200000000	400000000	200000000	300000000	200000000	800000000	800000000	800000000	800000000	1500000000	1500000000	1500000000	
19	PENDOKHAN SEKOLAH	220000	800000	1000000	270000	270000	1020000	1240000	3240000	3370000	1320000	1520000	4000000	3370000	1282000	8000000	
20	PENDOKHAN UNIVERSITAS	450000	1710000	2070000	540000	540000	2052000	2484000	6400000	6700000	2560000	3100000	8100000	6700000	2560000	3100000	
21	PENDOKHAN FASILITAS ALAMGROGA	450000	1710000	2070000	540000	540000	2052000	2484000	6400000	6700000	2560000	3100000	8100000	6700000	2560000	3100000	
22	TRANSPORITASI JALAN	401630917.5	401630917.5	401630917.5	401630917.5	401630917.5	401630917.5	401630917.5	401630917.5	401630917.5	401630917.5	401630917.5	401630917.5	401630917.5	401630917.5	401630917.5	
23	TRANSPORITASI TERESTRI	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	
24	TRANSPORITASI KEMAHATAN	3750633333	3750633333	3750633333	3750633333	3750633333	3750633333	3750633333	3750633333	3750633333	3750633333	3750633333	3750633333	3750633333	3750633333	3750633333	
25	TRANSPORITASI KERETA API	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	2500000000	
26	TRANSPORITASI BANDARA	2500000	2500000	2500000	2500000	2500000	2500000	2500000	2500000	2500000	2500000	2500000	2500000	2500000	2500000	2500000	
27	TELEKOMUNIKASI BTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28	ENERGI SIPRU	2000000	20000000	2000000	2000000	60000000	60000000	60000000	60000000	100000000	100000000	100000000	100000000	160000000	160000000	160000000	
29	ENERGI GASDUL PLN	3437500000	3437500000	3437500000	3437500000	3437500000	3437500000	3437500000	3437500000	3437500000	3437500000	3437500000	3437500000	3437500000	3437500000	3437500000	
30	AK BERSIH DAN BERSIH INSTALASI PDAM	5000000	5000000	5000000	5000000	10000000	10000000	10000000	10000000	25000000	25000000	25000000	25000000	50000000	50000000	50000000	
31	AK BERSIH DAN BERSIH MCK	500000	2000000	5000000	5000000	10000000	4000000	7500000	2000000	15000000	6000000	10000000	5000000	2000000	8000000	15000000	
32	AK BERSIH DAN BERSIH POMPA AIR	100000	500000	1000000	500000	500000	1000000	5000000	1000000	1000000	2500000	7500000	2500000	10000000	5000000	10000000	
33	AK BERSIH DAN BERSIH TANGKUL AIR	100000	200000	500000	1000000	500000	1000000	2500000	5000000	1000000	2500000	5000000	10000000	2500000	5000000	10000000	
34	PENERMATAAN FASILITAS KEPOLISAN	7437500	11156250	14875000	7437500	11156250	14875000	18693750	11156250	14875000	18693750	22312500	14875000	18693750	22312500	18693750	
35	PENERMATAAN FASILITAS PENERMATAAN	3497356.88	51140355.31	68194713.75	34987506.88	51140355.31	68194713.75	8243392.91	51140355.31	68194713.75	8243392.91	10220570.6	68194713.75	8243392.91	10220570.6	11934671.68	
36	PENERMATAAN FASILITAS MITER	10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	
37	PENERMATAAN RUAH TERANG	525000000	78750000	105000000	525000000	78750000	105000000	150000000	131250000	78750000	105000000	131250000	157500000	131250000	157500000	131250000	
38	LINGKUNGAN TANAH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
39	LINGKUNGAN KEMERAHAN	50000	50000	50000	50000	20000	20000	20000	20000	40000	40000	40000	40000	70000	70000	70000	
40	AGAMA MASJID	5250000	10500000	10500000	5250000	7875000	10500000	13125000	7875000	10500000	13125000	15750000	13125000	15750000	15750000	13125000	
41	AGAMA GEREJA	5250000	10500000	10500000	5250000	7875000	10500000	13125000	7875000	10500000	13125000	15750000	13125000	15750000	15750000	13125000	
42	AGAMA VHRGA	5000000	7000000	7000000	5000000	5250000	7000000	8750000	5250000	7000000	8750000	10500000	7000000	8750000	10500000	12250000	

4.7 Settings >> Aggregate Config

Page URL	/report/aggregate_config/
Related database tables	-
Description	Shows the aggregate configuration file that affects the calculation produced by the JakSERVICE application. A form is available to allow the user to upload a new .csv file (login required). A link is also available to download the file.

Screenshot



JakSAFE Aggregate Config

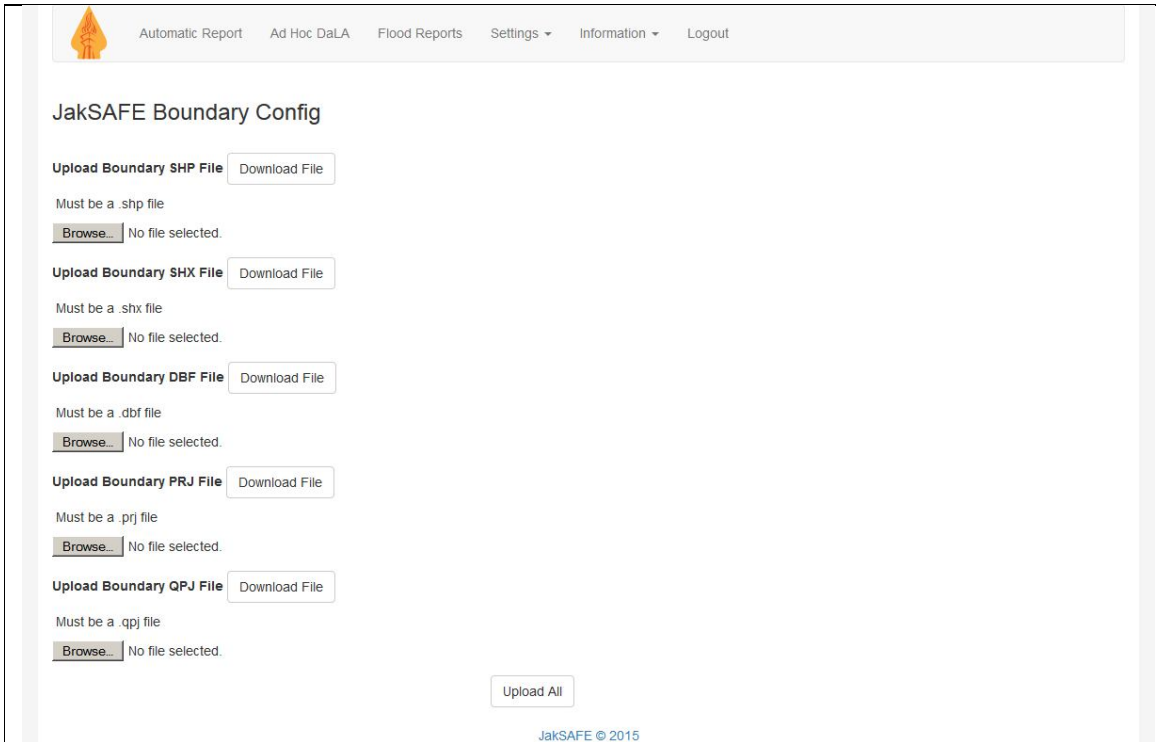
Upload Aggregate Config File
Must be a .csv file.
[Browse...](#) No file selected.
[Upload](#) [Download This Config](#)

#	Provinsi	Kota	Kecamatan	Kelurahan	RW	RT	Subsektor	Aset	Jumlah
1.	DKI JAKARTA	JAKARTA SELATAN					KESEHATAN	PUSKESMAS	10
2.	DKI JAKARTA	JAKARTA TIMUR					KESEHATAN	PUSKESMAS	10
3.	DKI JAKARTA	JAKARTA PUSAT					KESEHATAN	PUSKESMAS	8
4.	DKI JAKARTA	JAKARTA BARAT					KESEHATAN	PUSKESMAS	8
5.	DKI JAKARTA	JAKARTA UTARA					KESEHATAN	PUSKESMAS	6
6.	DKI JAKARTA	JAKARTA SELATAN					KESEHATAN	PUSKESMAS	69
7.	DKI JAKARTA	JAKARTA TIMUR					KESEHATAN	PUSKESMAS	78
8.	DKI JAKARTA	JAKARTA PUSAT					KESEHATAN	PUSKESMAS	35
9.	DKI JAKARTA	JAKARTA BARAT					KESEHATAN	PUSKESMAS	67
10.	DKI JAKARTA	JAKARTA UTARA					KESEHATAN	PUSKESMAS	43
11.	DKI JAKARTA	JAKARTA PUSAT					KESEHATAN	RUMAH SAKIT	15
12.	DKI JAKARTA	JAKARTA PUSAT					KESEHATAN	RUMAH SAKIT	15
13.	DKI JAKARTA	JAKARTA UTARA					KESEHATAN	RUMAH SAKIT	14
14.	DKI JAKARTA	JAKARTA UTARA					KESEHATAN	RUMAH SAKIT	6
15.	DKI JAKARTA	JAKARTA BARAT					KESEHATAN	RUMAH SAKIT	12
16.	DKI JAKARTA	JAKARTA BARAT					KESEHATAN	RUMAH SAKIT	10
17.	DKI JAKARTA	JAKARTA SELATAN					KESEHATAN	RUMAH SAKIT	23
18.	DKI JAKARTA	JAKARTA SELATAN					KESEHATAN	RUMAH SAKIT	19
19.	DKI JAKARTA	JAKARTA TIMUR					KESEHATAN	RUMAH SAKIT	22
20.	DKI JAKARTA	JAKARTA TIMUR					KESEHATAN	RUMAH SAKIT	16

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4.8 Settings >> Boundary Config


Page URL	/report/boundary_config/
Related database tables	-
Description	Shows a form where the user can upload a new boundary shapefile set (login required). A link is also available to download each of the files.
Screenshot	



The screenshot shows the 'JakSAFE Boundary Config' page. At the top is a navigation bar with a logo and links: 'Automatic Report', 'Ad Hoc DaLA', 'Flood Reports', 'Settings', 'Information', and 'Logout'. The main content area contains five sections for uploading boundary files: SHP, SHX, DBF, PRJ, and QPJ. Each section has a 'Download File' button, a file type requirement (e.g., 'Must be a .shp file'), a 'Browse...' button, and a status 'No file selected.'. At the bottom right of the form is an 'Upload All' button. The footer of the page reads 'JakSAFE © 2015'.

4.9 Settings >> Exposure Config

Page URL	/report/exposure_config/
Related database tables	-
Description	Shows a form where the user can upload new exposure shapefile sets for buildings and roads (login required). A link is also available to download each of the files.
Screenshot	


Automatic Report Ad Hoc DaLA Flood Reports Settings ▾ Information ▾ Logout

JakSAFE Exposure Config

Upload Building Exposure SHP File Download File

Must be a .shp file

 No file selected.

Upload Building Exposure SHX File Download File

Must be a .shx file

 No file selected.

Upload Building Exposure DBF File Download File

Must be a .dbf file

 No file selected.

Upload Building Exposure PRJ File Download File

Must be a .prj file

 No file selected.

Upload Building Exposure QPJ File Download File

Must be a .qpj file

 No file selected.

Upload Road Exposure SHP File Download File

Must be a .shp file

 No file selected.

Upload Road Exposure SHX File Download File

Must be a .shx file

 No file selected.

Upload Road Exposure DBF File Download File

Must be a .dbf file

 No file selected.

Upload Road Exposure PRJ File Download File

Must be a .prj file

 No file selected.

Upload Road Exposure QPJ File Download File

Must be a .qpj file


 No file selected.

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4.10 Information

Page URL	/pages/*/
Related database tables	django_flatpage, django_flatpage_sites, extended_flatpages_cmsflatpage
Description	A list of static pages that were created using the Django Extended Flatpages package.

Screenshot


Automatic Report Ad Hoc DaLA Flood Reports Settings ▾ Information ▾ Logout

Test Page

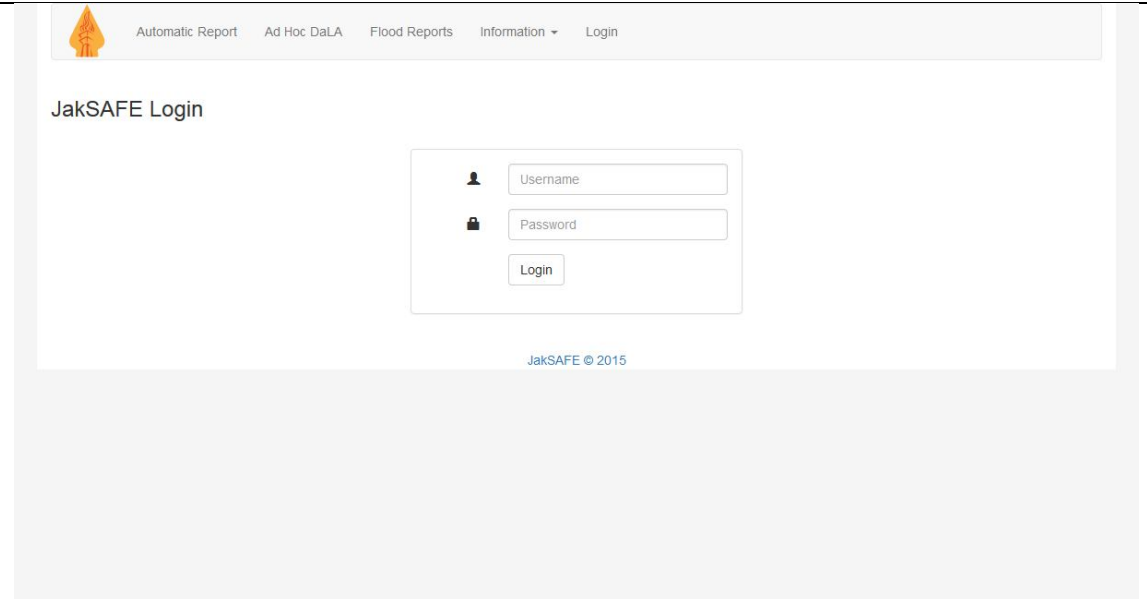
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vivamus blandit, ex in pellentesque euismod, arcu orci facilisis eros, at molestie lacus lacus a massa. Duis imperdiet, orci nec sodales vestibulum, metus ligula pharetra velit, consectetur pulvinar justo eros vel neque. Integer a laoreet leo. Nulla in purus sed nunc suscipit malesuada in a sem. Cras aliquet rhoncus purus. Etiam quis ipsum ipsum. Proin vehicula tellus turpis, eget commodo arcu aliquet at. Curabitur sollicitudin, arcu vitae aliquet sodales, augue nulla luctus magna, non efficitur nulla felis a purus. Morbi maximus tortor fringilla libero dignissim efficitur. Morbi sed diam diam. Mauris finibus purus risus, non volutpat enim accumsan vel.

Nulla facilisi. Quisque faucibus consequat justo nec lacinia. Vivamus urna leo, pretium in consectetur in, tempus et ipsum. Mauris pulvinar accumsan vulputate. Maecenas pellentesque placerat ipsum, ac tincidunt nisi sodales at. Morbi quis velit tincidunt, maximus diam sed, porttitor sapien. Sed varius rutrum ipsum, in blandit urna tempus vel. Interdum et malesuada fames ac ante ipsum primis in faucibus. Aenean ut fringilla sapien. Morbi tempus felis vel hendrerit faucibus. Aliquam elementum nec mi eget placerat. Integer cursus, elit ac fringilla sollicitudin, tortor nisi tincidunt quam, sit amet sagittis mi est eu ex. Fusce faucibus non metus vel porttitor. Phasellus risus sem, blandit et enim id, molestie pharetra leo. Cras luctus, justo sit amet accumsan tempus, sem lorem commodo magna, non convallis erat velit vel neque.

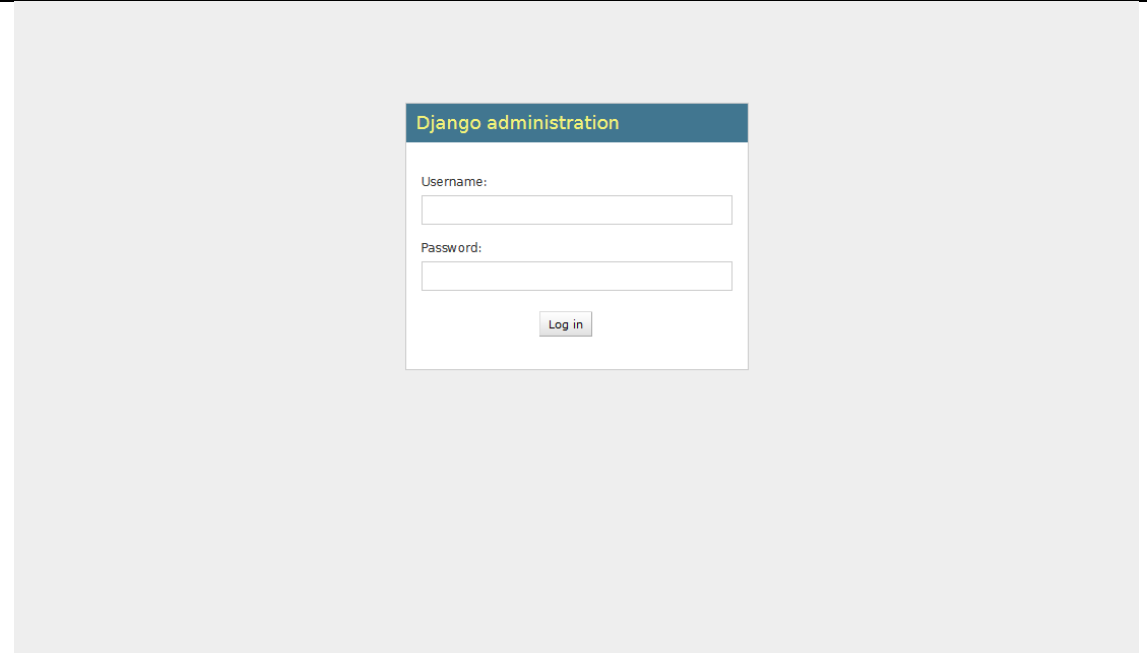
Sed sodales felis turpis, sed hendrerit libero vehicula in. Nam sed eros nunc. Nunc sed dolor sed orci vehicula placerat sit amet volutpat tellus. Proin congue malesuada enim, bibendum mollis ipsum gravida a. Vestibulum ornare, diam ut tempor elementum, est dolor cursus massa, vehicula rutrum massa neque vel purus. Ut sed tincidunt nibh. Duis tempus tortor quis dolor posuere blandit. Curabitur bibendum arcu in aliquam tempus.

JakSAFE © 2015

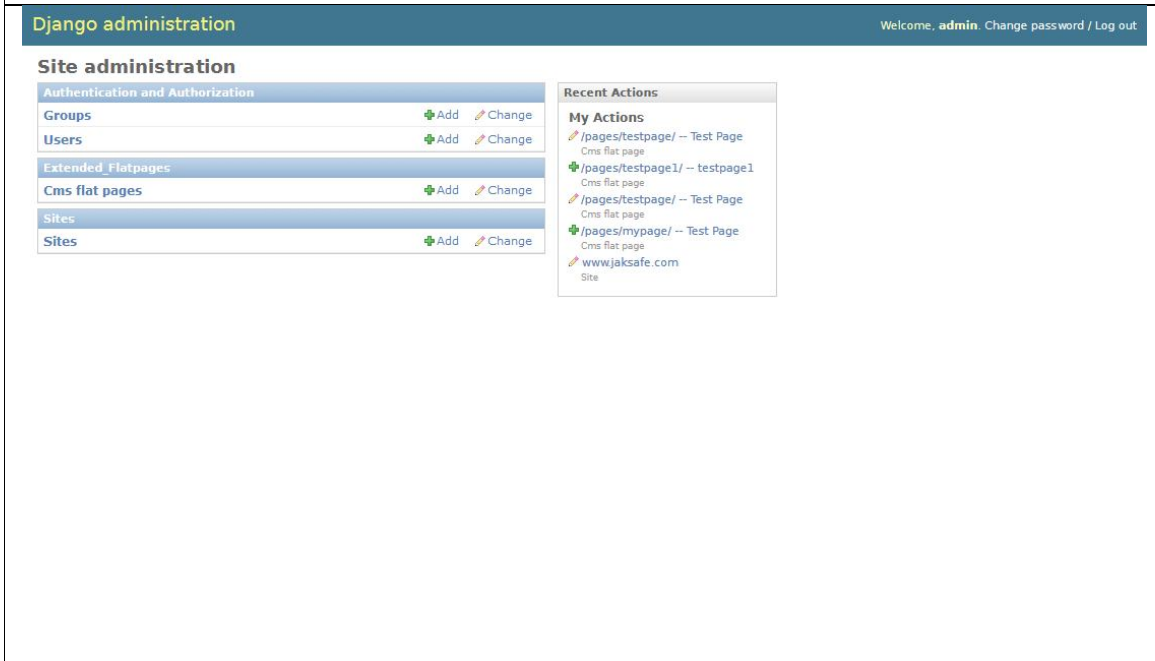
4.11 Login Page

Page URL	/report/login/
Related database tables	auth_user
Description	The user login page.
Screenshot	
	

4.12 Admin Login Page

Page URL	/admin/login/
Related database tables	auth_user
Description	The user login page to the Django Admin backend.
Screenshot	
	

4.13 Admin Page

Page URL	/admin/
Related database tables	-
Description	The Django Admin backend page.
Screenshot	 <p>The screenshot displays the Django Admin interface. At the top, there's a header bar with 'Django administration' on the left and 'Welcome, admin. Change password / Log out' on the right. Below the header, the 'Site administration' section is visible, containing a table with links to 'Groups', 'Users', 'Extended Flatpages', 'Cms flat pages', and 'Sites'. Each link has 'Add' and 'Change' buttons. To the right of this table is a 'Recent Actions' sidebar showing a list of actions performed, including creating and deleting test pages and a site.</p>

5 Source Code Structure

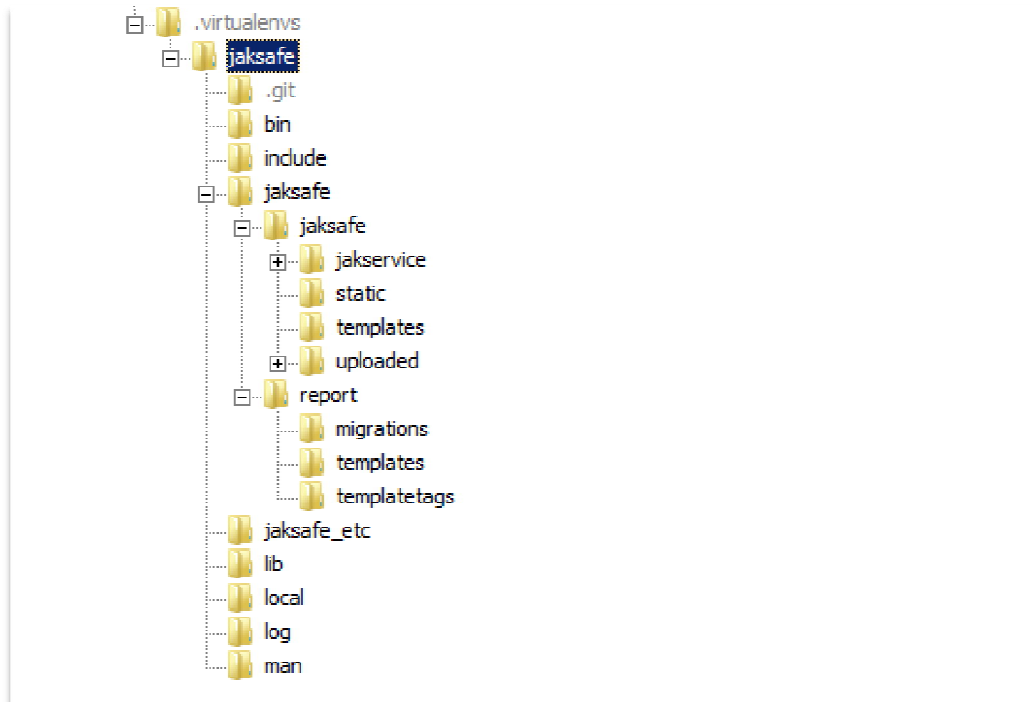


Figure 5 JakSAFE webapp source code structure

In the figure above the JakSAFE webapp is deployed within a Python virtualenv (<https://virtualenv.pypa.io/en/latest/>) called 'jaksafe' (the highlighted directory). The following is a description of the webapp directories and their contents:

Directory/File Name	Description
.git	JakSAFE webapp git repository
/bin	virtualenv Python binary directory
/include	virtualenv Python package include directory
/jaksafe	JakSAFE Django project root directory
--jaksafe/	JakSAFE Django JakSAFE app directory
----jakservice/	JakSERVICE application root directory
----static/	JakSAFE Django static files root directory
-----css/	CSS library files directory
-----fonts/	Web font files directory
-----img/	Images files directory
-----js/	Javascript library files
----templates/	JakSAFE Django base template root directory
----uploaded/	JakSAFE Django uploaded files root directory
-----jakservice/	JakSERVICE application input/output files root directory
---context_processors.py	JakSAFE Django context processor script
---settings.py	JakSAFE Django main settings script
---settings.py.sample	JakSAFE Django example settings script
---urls.py	JakSAFE Django main URL dispatcher script
---wsgi.py	JakSAFE Django WSGI application script

--report/	JakSAFE Django Report app directory
----migrations/	Report app DB migration files directory
----templates/	Report app template files directory
----templatetags/	Report app custom template tags directory
----admin.py	Report app Django Admin hook script
----forms.py	Report app form definition script
----models.py	Report app DB model handler script
----tests.py	Report app test case script
----urls.py	Report app URL dispatcher script
----views.py	Report app views script
--manage.py	JakSAFE Django project Admin script
/jaksafe_etc	JakSAFE webapp third party library and etc scripts
/lib	virtualenv Python package include directory
/local	virtualenv Python package include directory
/log	Log file output directory
/man	virtualenv man directory
.gitignore	List of directories and files to be ignored by git
AUTHORS	List of Authors
README.md	JakSAFE webapp setup documentation
requirements.txt	JakSAFE webapp required Python packages (dependencies)
start_server.sh	Bash script to start the Gunicorn web server
start_supervisord.sh	Use Supervisor to start and monitor Gunicorn web server
supervisord.conf	Supervisor configuration file

6 Settings.py Script

The settings.py script located in **/path/to/project/root/jaksafe/jaksafe/settings.py** contains various parameters that affect the operation of the JakSAFE Django webapp. Refer to <https://docs.djangoproject.com/en/1.7/ref/settings/> for the explanation of Django specific parameters. Meanwhile parameters that are specific to the JakSERVICE application are prefixed with 'JAKSERVICE_' and used to look up the path to the directories and files. Other parameters include:

- CONTENT_TYPES: the allowed file types that can be uploaded for certain forms
- MAX_UPLOAD_SIZE: the maximum allowed file size that can be uploaded for certain forms
- PYTHON_EXEC: the path to the Python interpreter used to run the JakSERVICE application
- RECORDS_PER_PAGE: the maximum number of records to show in a page before paging the record list

7 Running the JakSAFE webapp

After the JakSAFE webapp has been deployed on a Linux server (refer to the Deployment Guide for the steps) start the Gunicorn HTTP server by running the **start_server.sh** or **start_supervisord.sh** script, then open the web browser go to **http://SERVER_ADDRESS**.