As a first step to integrate OASP4J with **PostGres 9.5.4**, **PostGres 9.5.4** has to be installed. Following are the snapshots of the configuration chosen during various stages of installation .

Note : One can ignore the following section if they are well versed with installation procedure of **PostGres 9.5.4**

PostGres 9.5.4 Installation and Configuration :

 Download PostGres 9.5.4 for Windows 64 bit Operating System from <u>http://www.enterprisedb.com/products-services-training/pgdownload#windows</u>. Screenshot of the download page below.

	Products	Download PostgreSQL	
	Subscriptions		
	Advanced Server®	Please Note: Cookies should be enabled for the download process to function correctly Installer upmion Version 0.6.0 (Decelers file for suptements interacted in using DL/Dectloss or DL/Tell	
	PostgreSQL Overview		
	Download PostgreSQL		
	Postgres Plus Cloud Database	Installer version Version 9.5.4 [Readme file for customers interested in using PUPert, PUPython or PUTcl]	
	EnterpriseDB Tools	🗴 Limux x86-52 Δ Limux x86-64 耀 Win x86-52 🎥 Win x86-54 📫 Mac OS Χ	
S D I	Postgres Enterprise Manager	Installer version 9.4.9 [Readme file for customers interested in using PUPerl, PUPython or PUTc]	ials
Contac	xDB Replication - Multi Master	🗴 Linux x86-52 🛕 Linux x86-64 耀 Win x86-52 🦧 Win x86-64 🏨 Mac O S X	Free Tr
	xDB Replication - Single Master	Installer version Version 9.3.14	Ť
	EDB Fallover Manager	🗴 Limux x86-32 🛕 Limux x86-64 🎥 Win x86-32 🧗 Win x86-64 🙀 Mac OS Χ	
	EDB Backup and Recovery Tool	Institute varios Manton 0.2.19	
	EDB SQL/Protect	Installer Version 3.2.10	
	EDB Migration Toolkit	🗴 Linux x86-52 🛕 Linux x86-64 🧗 Win x86-52 🧗 Win x86-64 🎉 Mac OS X	
	EDB Update Monitor	Installer version Version 9.1.23	
	Licensing		
	Services	Δ Linux x86-32 Δ Linux x86-64 📲 Win x86-52 📲 Win x86-64 🗳 Mac OS X	
	Training		
	Solutions		
	Success Stories		

• Once installable for **PostGres6.5.4** is downloaded , click on the installable for the installation process to start. In the screenshot below , installable is present at the end of the list . Please click on it for the installation to start

Data (D:) ► softwares ► postgresql ► 9.5.4 ►				▼ 4 ₇
ary ▼ Share with ▼ New folder				
Name	Date modified	Туре	Size	
🐌 postgresql-9.5.4	9/16/2016 12:47 PM	File folder		
postgresqI-9.5.4	8/9/2016 2:17 AM	tar Archive	115,300 KB	
🛄 postgresql-9.5.4.tar	9/16/2016 12:46 PM	gz Archive	23,575 KB	
postgresql-9.5.4-1-windows-x64	9/19/2016 10:54 A	Application	62,445 KB	

• In the screen that is displayed below , click on the 'Next' button



• In the screen that is displayed below, select the installation directory and click on 'Next' button.



• In the screen that is displayed below, select the data directory and click on 'Next' button.

Data Directory			
Please select a directory under v	hich to store your data.	37 N	
Data Directory D:\installations\P	ostGres9.5.4\data		
nstallBuilder			

• In the screen that is displayed below, enter the password for **PostGres** and click on 'Next' button.

1	Setup		1
	Password	*	
	Please provide a password for the database superuser (postgres). Password Retype password		
: 0 N			N
	InstallBuilder	<pre>< Back Next > Cancel</pre>	

• In the screen that is displayed below, enter the port for **PostGres** and click on 'Next' button.

Port			
Please select the port number the ser	rver should listen on.		
Port 5432			
InstallBuilder			
		< Back Next > Cancel	

• In the screen that is displayed below, please select the Locale and click on 'Next' button.

Advanced Options		
Select the locale to be used by the new databa	se cluster.	
Locale English, United States		
InstallBuilder		

• In the screen that is displayed below, you can select the check box for launching the **Stack Builder** if needed.

(X	View
) N	Completing the PostgreSQL Setup Wizard Setup has finished installing PostgreSQL on your computer. Launch Stack Builder at exit? Stack Builder may be used to download and install additional drivers and applications to complement your PostgreSQL insta	tools, allation.		N (
	Sack Finis	sh Car	ncel	

DBIntegration – Disabling PostGres 9.5.4 and enabling h2 Database

 Comment column annotation for 'user' attribute in oasp4j-jpaenvers/src/main/java/io/oasp/module/jpa/dataaccess/api/AdvancedRevisionEntity.java. Below is the commented code for reference

```
/** @see #getUser() */
/** Remove the following line completely (Column Annotation) in case of
database other than PostGres */
//Column(name = "`user`")
```

private String user;

• Comment **Type** annotation for 'data' attribute in oasp4j-samplecore/src/main/java/io/oasp/gastronomy/restaurant/general/dataacess/api/BinaryObjectEnti ty.java

```
//@Type(type = "org.hibernate.type.BinaryType")
public Blob getData() {
```

• Comment the dependency for **PostGres 9.5.4** jdbc driver in oasp4j-sample-core/pom.xml. Commented code below

- Rename file V0001__R001_Create_schema_pg.sql in oasp4j-samplecore/src/main/resources/db/migration/postgre to V0001__R001_Create_schema_pg.sql.pg
- Rename file V0002__R001_Master_data_pg.sql in oasp4j-samplecore/src/main/resources/db/migration/ postgre to V0002__R001_Master_data_pg.sql.pg
- Rename file V0003__R001_Add_blob_table_and_data_pg.sql in oasp4j-samplecore/src/main/resources/db/migration/postgre to V0003__R001_Add_blob_table_and_data_pg.sql.pg
- Rename file V0004__R001_Add_batch_tables_pg.sql in oasp4j-samplecore/src/main/resources/db/migration/postgre to V0004__R001_Add_batch_tables_pg.sql.pg
- Uncomment the spring active profile **h2mem** and comment the spring active profile **postgre** in oasp4j-sample-core/src/main/resources/application.properties
- Uncomment the line that has spring active profile **junit** and comment the line has spring active profiles **junit** and **postgre** separated by comma in the file oasp4j-sample-core/src/test/resources/config/application.properties
- Rename file V9001_1__Delete_data_pg.sql in oasp4j-sample-core/src/ test/resources/AllTests/setup/db to V9001_1__Delete_data_pg.sql.pg
- Rename file V9901_1__Import_data_pg.sql in oasp4j-sample-core/src/ test/resources/ BillExportJobTest/setup/db to V9901_1__Import_data_pg.sql.pg
- Rename file V0001__R001_Create_schema_pg.sql in oasp4j-sample-core/src/ test/resources/db/tablemanagement to V0001__R001_Create_schema_pg.sql.pg
- Rename V0002___R001_Master_data_pg.sql in oasp4j-sample-core/src/ test/resources/db/tablemanagement to V0002___R001_Master_data_pg.sql.pg

DBIntegration – Enabling PostGres 9.5.4 and disabling h2 Database

• UnComment column annotation for 'user' attribute in oasp4j-jpaenvers/src/main/java/io/oasp/module/jpa/dataaccess/api/AdvancedRevisionEntity.java. Below is the uncommented code for reference

```
/** @see #getUser() */
/** Comment the following line completely (Column Annotation) in case of database
other than PostGres 9.5.4 */
Column(name = "`user`")
```

private String user;

• UnComment **Type** annotation for 'data' attribute in oasp4j-samplecore/src/main/java/io/oasp/gastronomy/restaurant/general/dataacess/api/BinaryObjectEnti ty.java

```
@Type(type = "org.hibernate.type.BinaryType")
public Blob getData() {
```

• Uncomment the dependency for **PostGres 9.5.4** jdbc driver in oasp4j-sample-core/pom.xml. Dependency for **PostGres 9.5.4** below

- In the file oasp4j-sample-core/src/main/resources/config/**application-postgre**.properties, please change the value of property 'spring.datasource.url'. Hostname, port and databaseName has to be changed accordingly. Change the values of the properties 'spring.datasource.username' and 'spring.datasource.password' as well accordingly.
- Rename file V0001__R001_Create_schema_pg.sql.pg in oasp4j-samplecore/src/main/resources/db/migration/postgre to V0001__R001_Create_schema_pg.sql
- Rename file V0002__R001_Master_data_pg.sql.pg in oasp4j-sample-core/src/main/resources/db/migration/postgre to V0002__R001_Master_data_pg.sql
- Rename file V0003__R001_Add_blob_table_and_data_pg.sql.pg in oasp4j-sample-core/src/main/resources/db/migration/postgre to V0003__R001_Add_blob_table_and_data_pg.sql
- Rename file V0004__R001_Add_batch_tables_pg.sql.pg

in oasp4j-sample-core/src/main/resources/db/migration/postgre to V0004__R001_Add_batch_tables_pg.sql

- Comment the spring active profile **h2mem** and Uncomment the spring active profile **postgre** in oasp4j-sample-core/src/main/resources/application.properties
- Rename file V9001_1__Delete_data.sql in oasp4j-sample-core/src/ test/resources/AllTests/setup/db/ to V9001_1__Delete_data.sql.h2
- Rename file V9901_1__Import_data.sql in oasp4j-sample-core/src/ test/resources/ BillExportJobTest/setup/db to V9901_1__Import_data.sql.h2
- Rename file V0001__R001_Create_schema.sql in oasp4j-sample-core/src/ test/resources/db/tablemanagement to V0001__R001_Create_schema.sql.h2
- Rename V0002__R001_Master_data.sql in oasp4j-sample-core/src/ test/resources/db/tablemanagement to V0002__R001_Master_data.sql.h2

After following above instructions, make sure JUNITs are successful by running the command '**mvn clean install**' for oasp4j project.

Running sample application with Angular JS Client:

• Follow steps mentioned in https://github.com/oasp/oasp4js/wiki/tutorial-jspacking-angular-client .

Running sample application with Sencha Client:

• Follow steps mentioned in <u>https://github.com/devonfw/devon/wiki/getting-started-deployment-on-tomcat</u>.