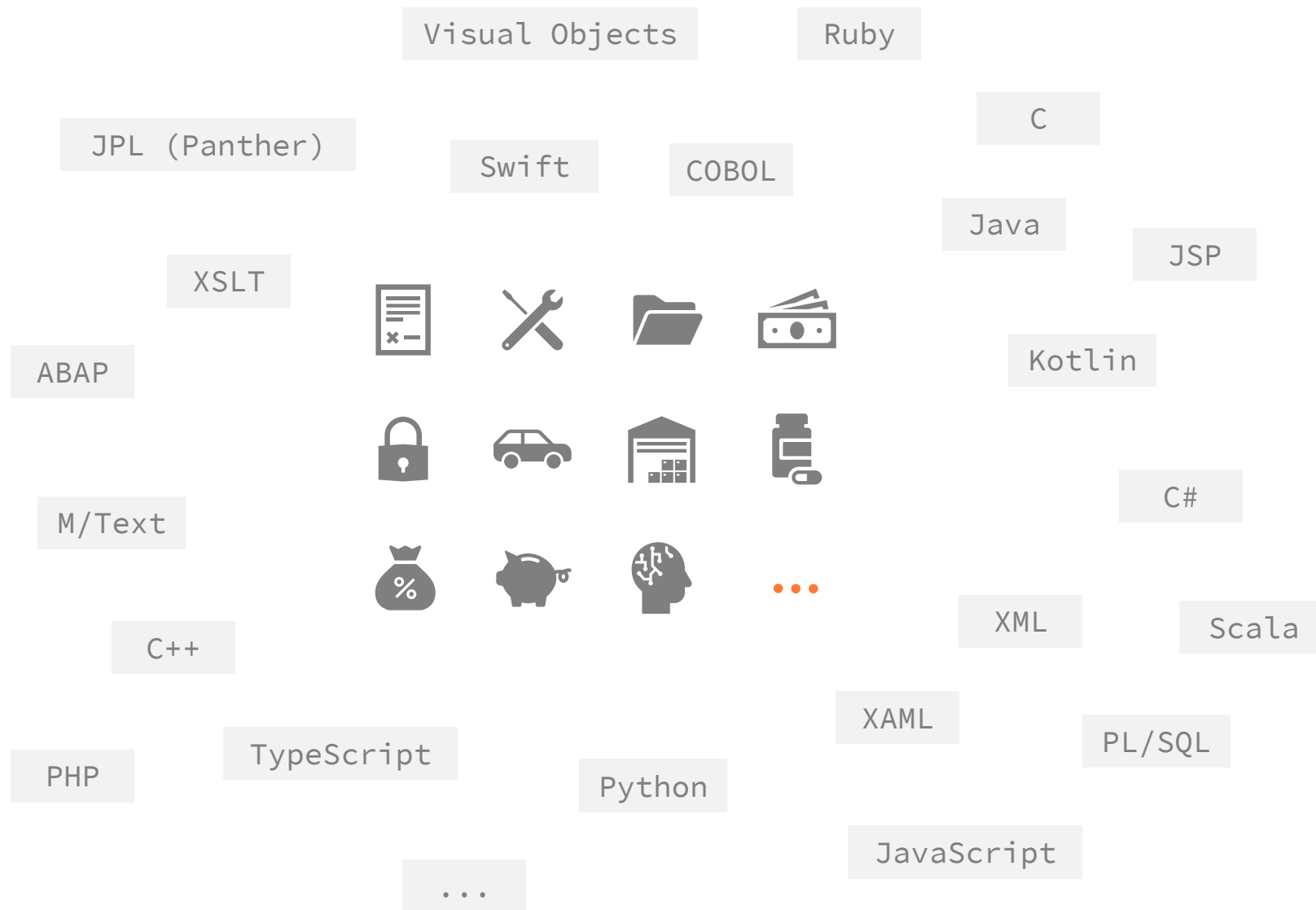


From **DAX** company
to **Church**

Experiences from
10 years analyzing
complex
software systems

Nils Göde

COSE





10
Years



20
Auditors



10
Countries



25
Languages



400
Interviews



3000
Pages



Overview **software portfolio**



Investment



Migration and restructuring



Moving to the **cloud**



Professionalization



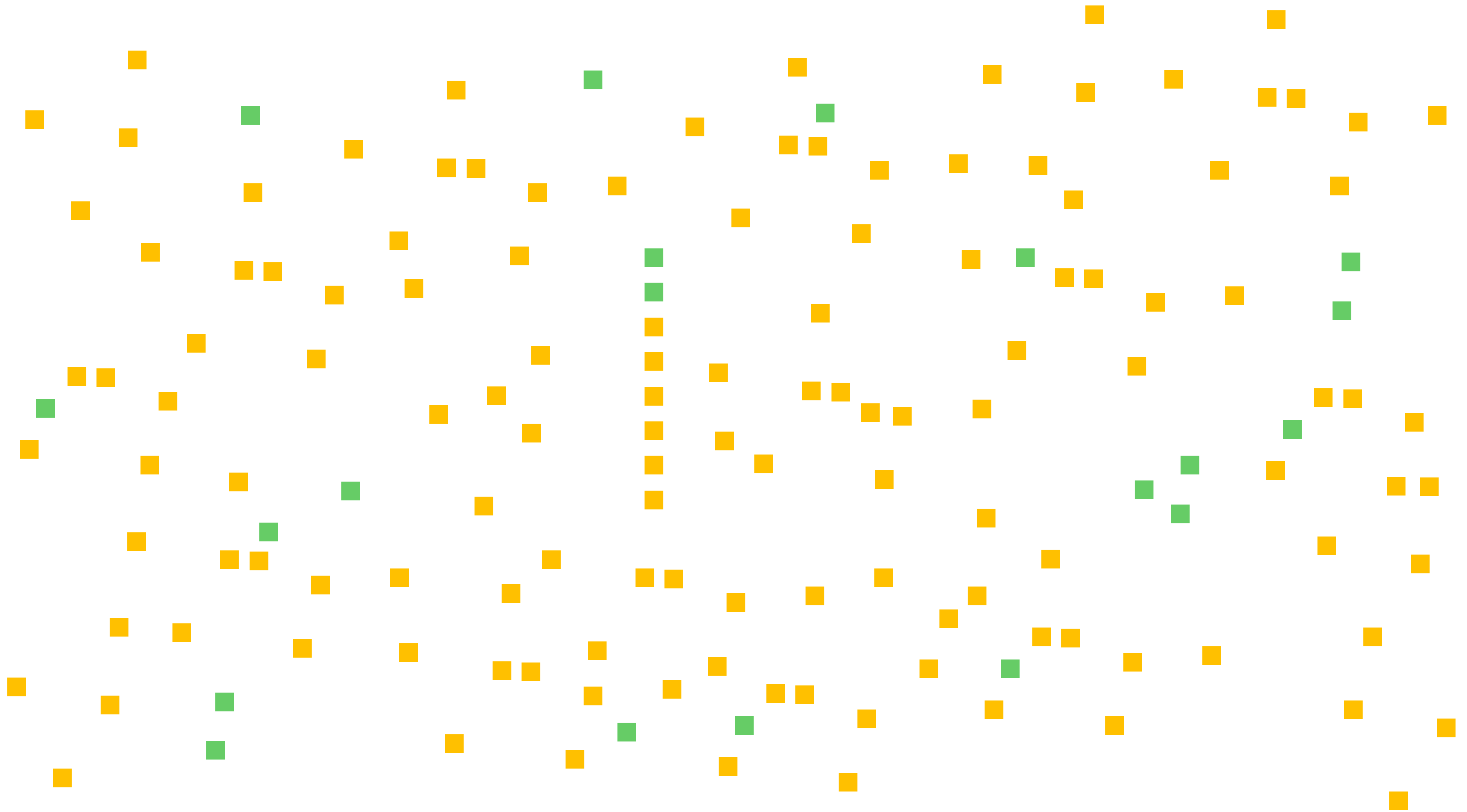
Approval of contract work



Integration of systems

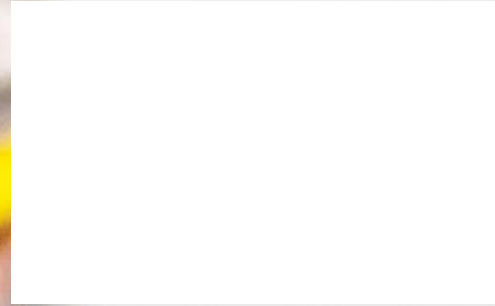


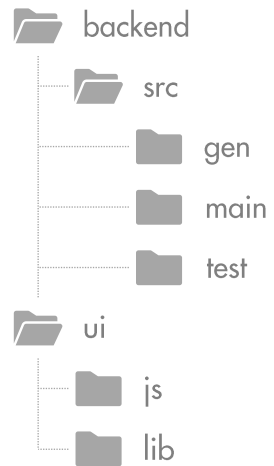
...





Directory Organization

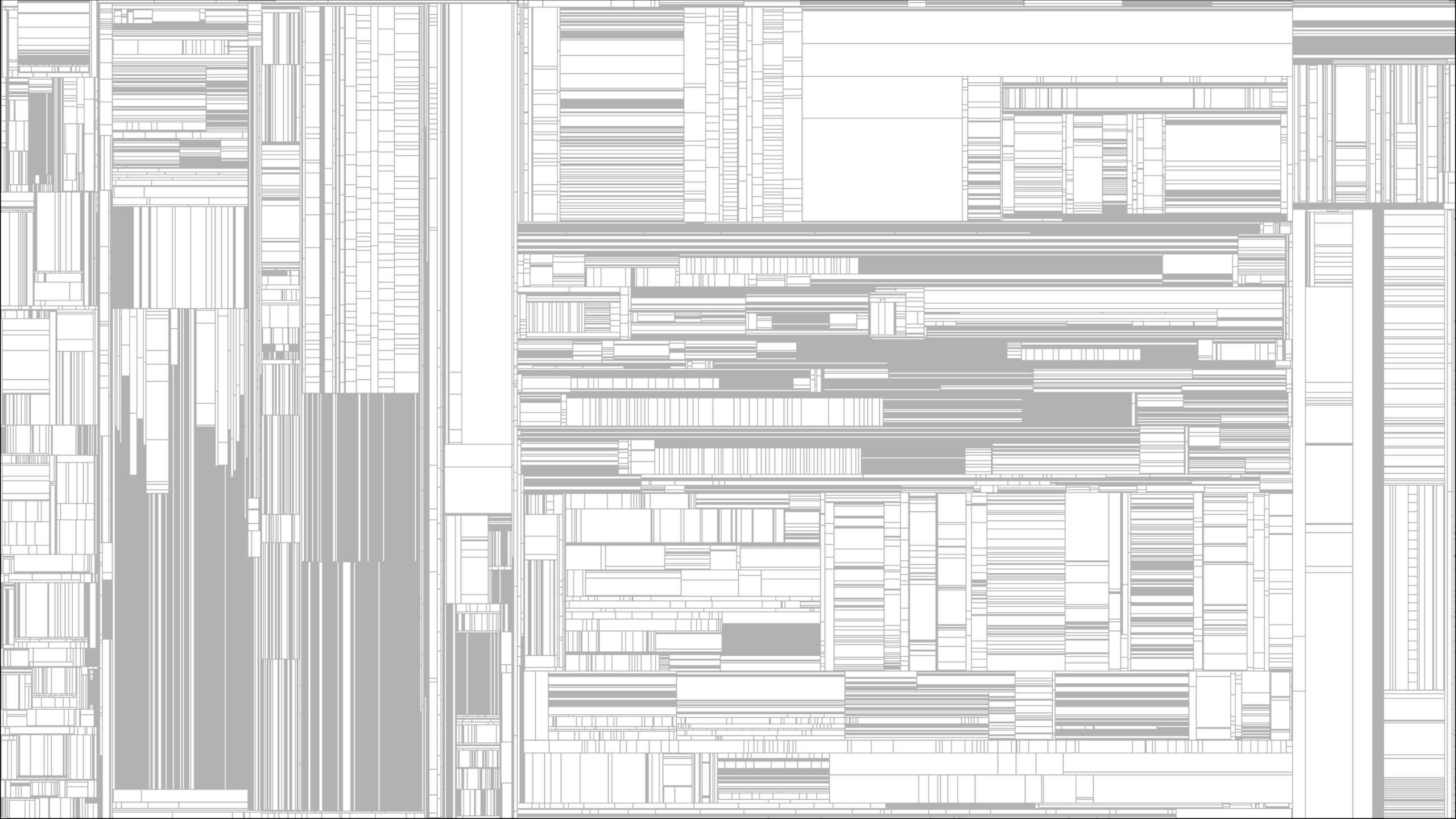


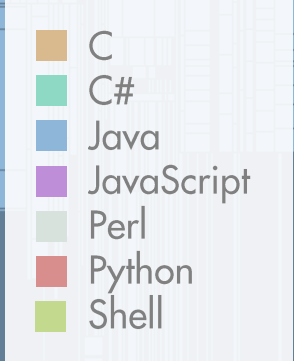


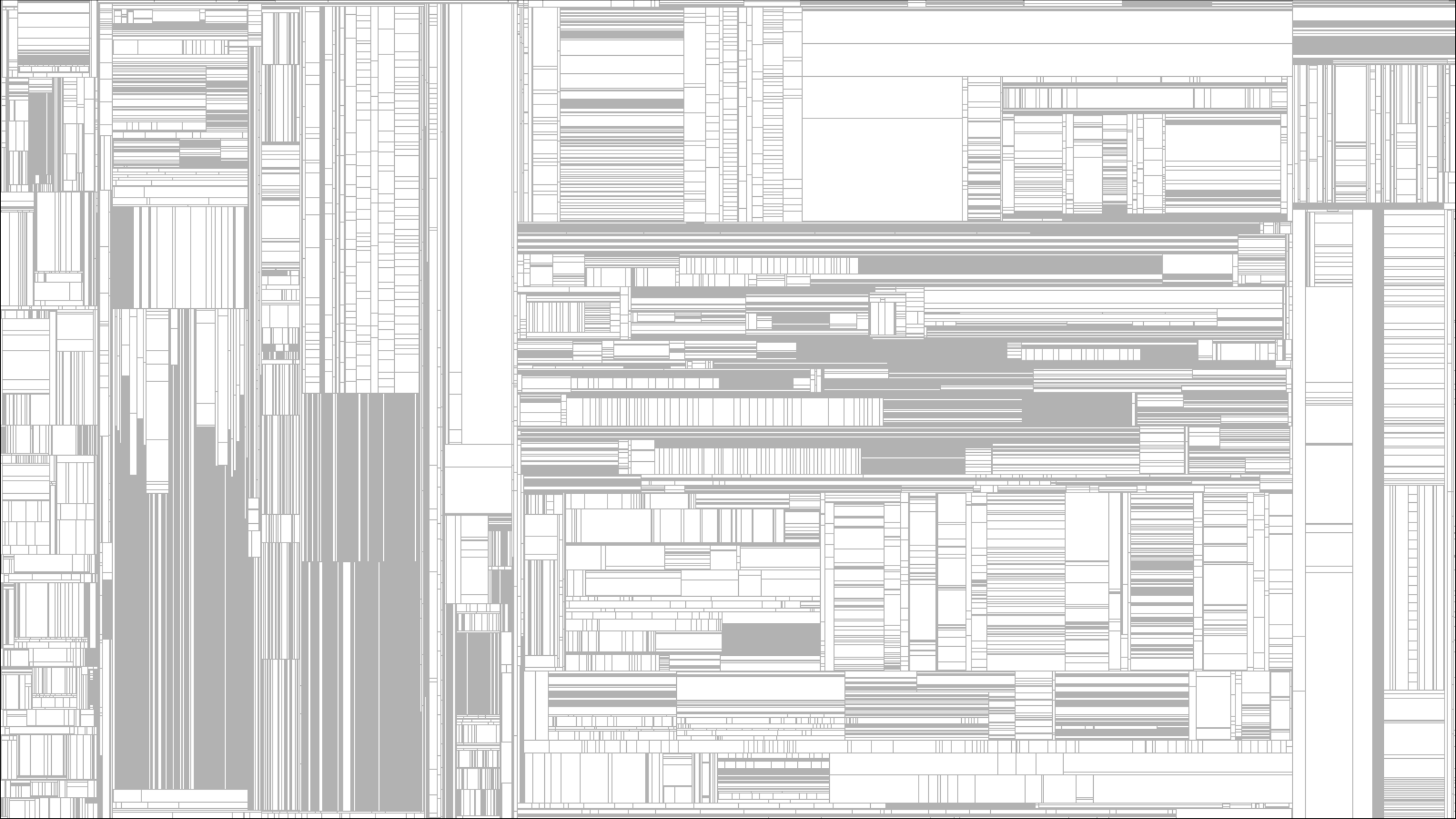
» What is this file ? «

» Where is 3rd-party code? «

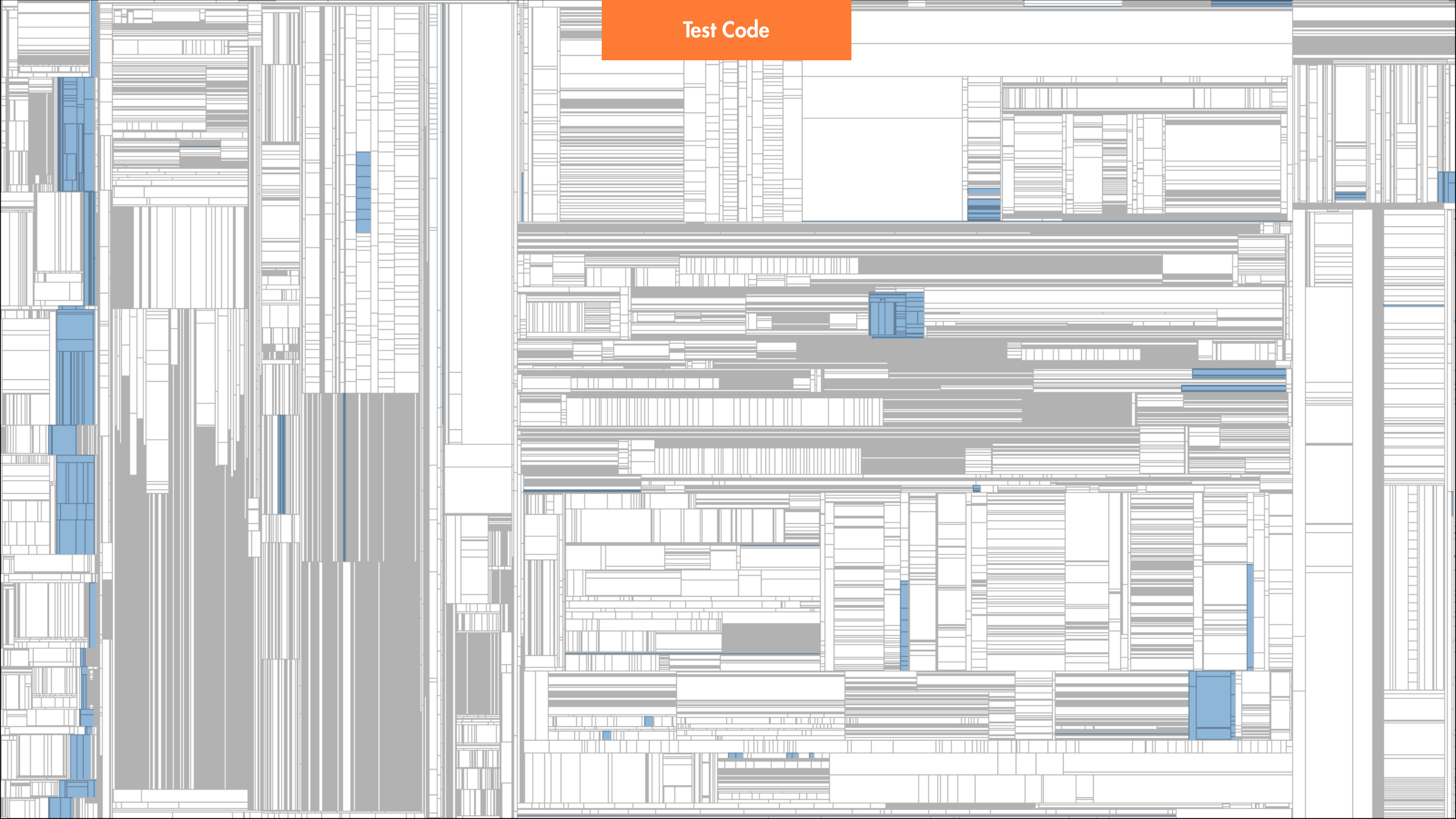
- Language
- Test
- Generated
- 3rd-Party
- Component
- Experimental
- ...



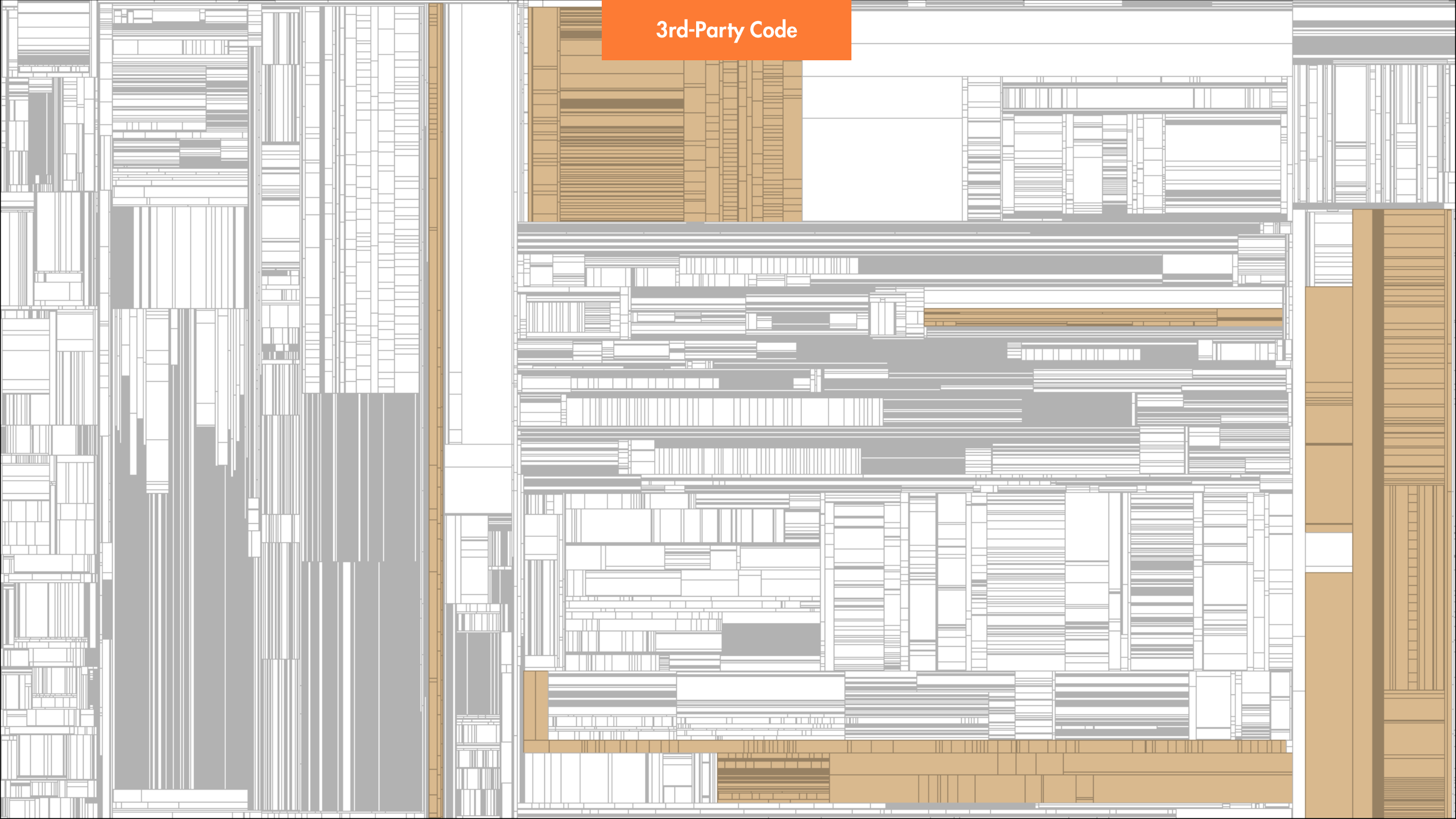




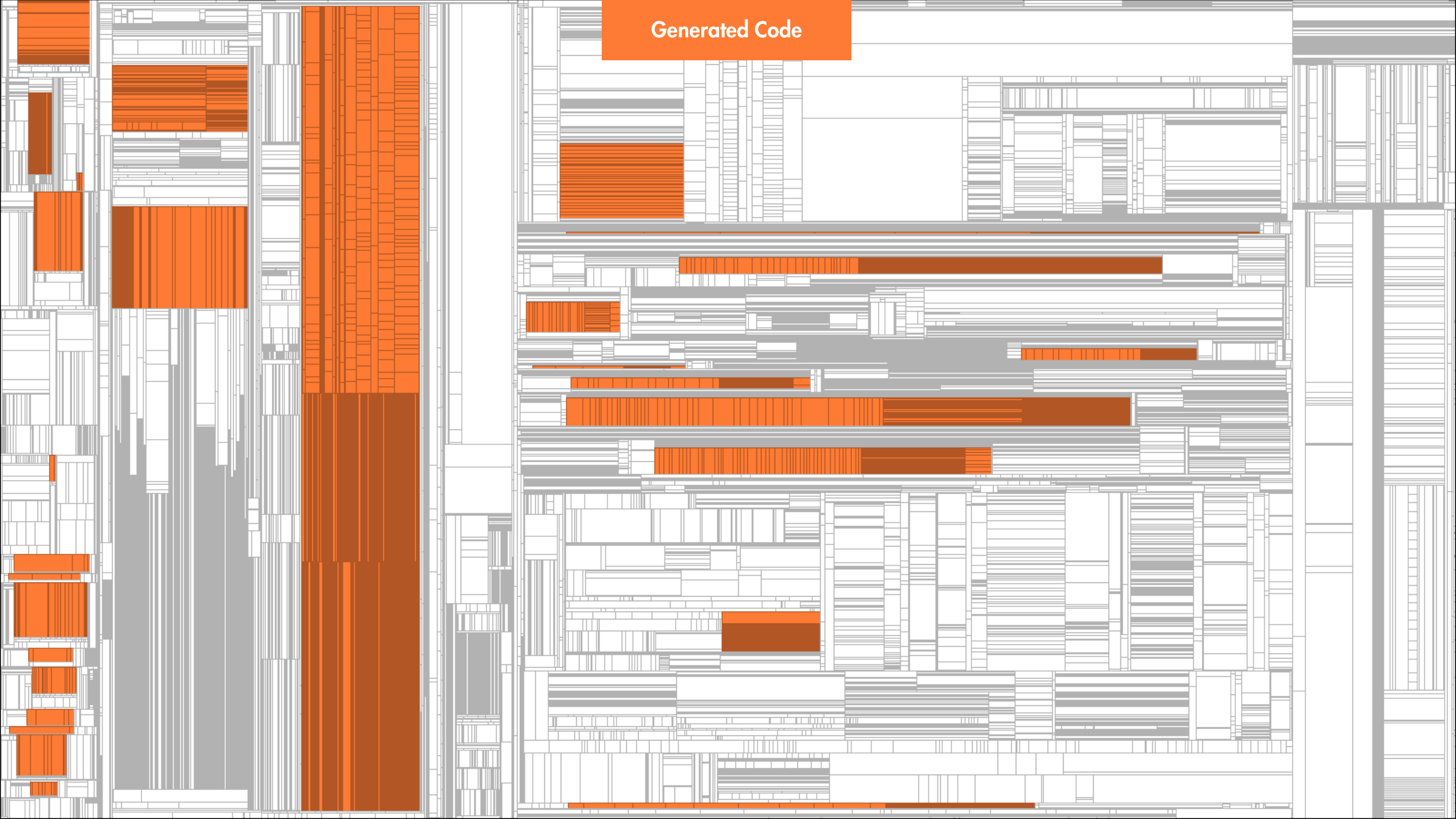
Test Code



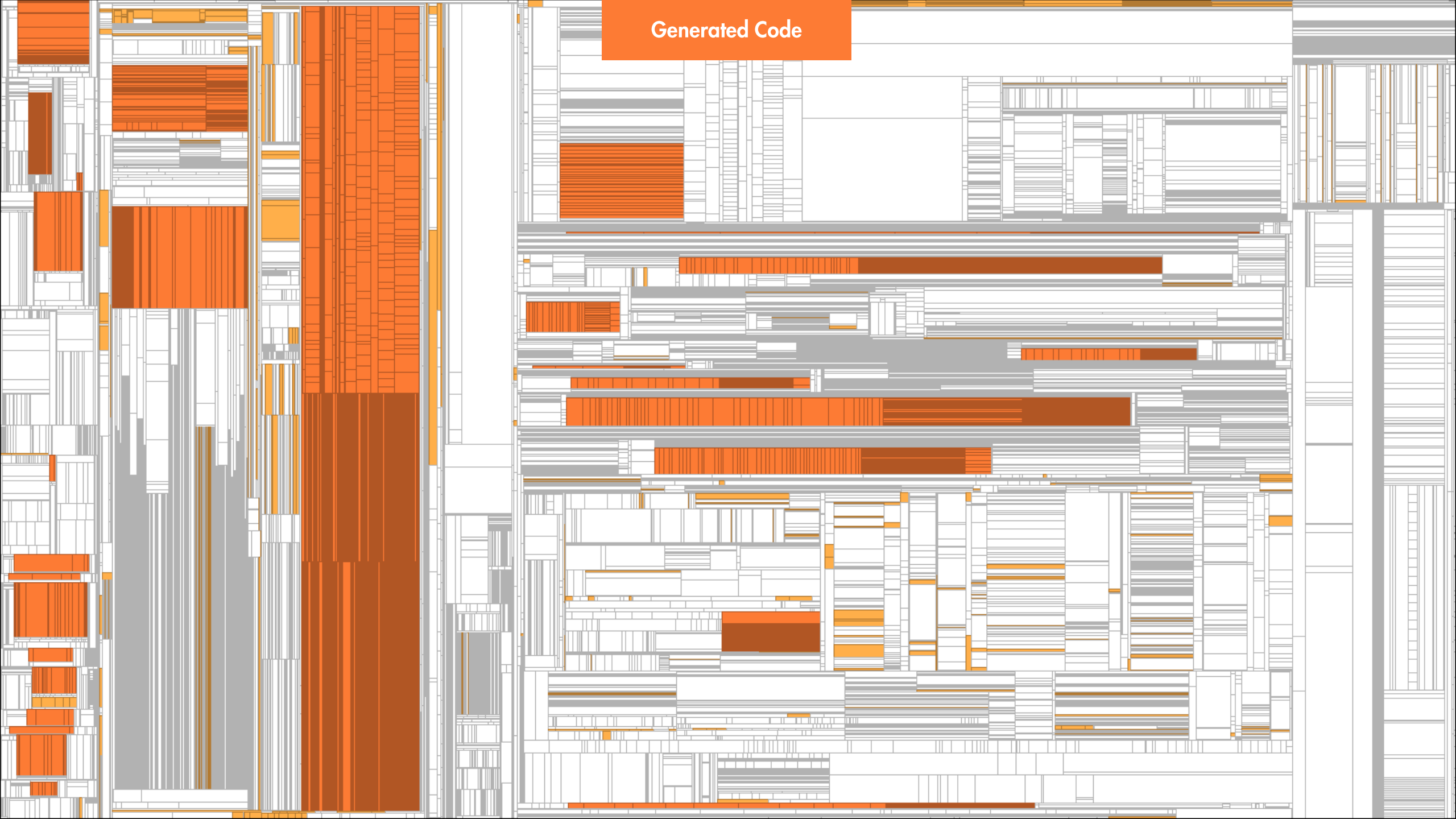
3rd-Party Code

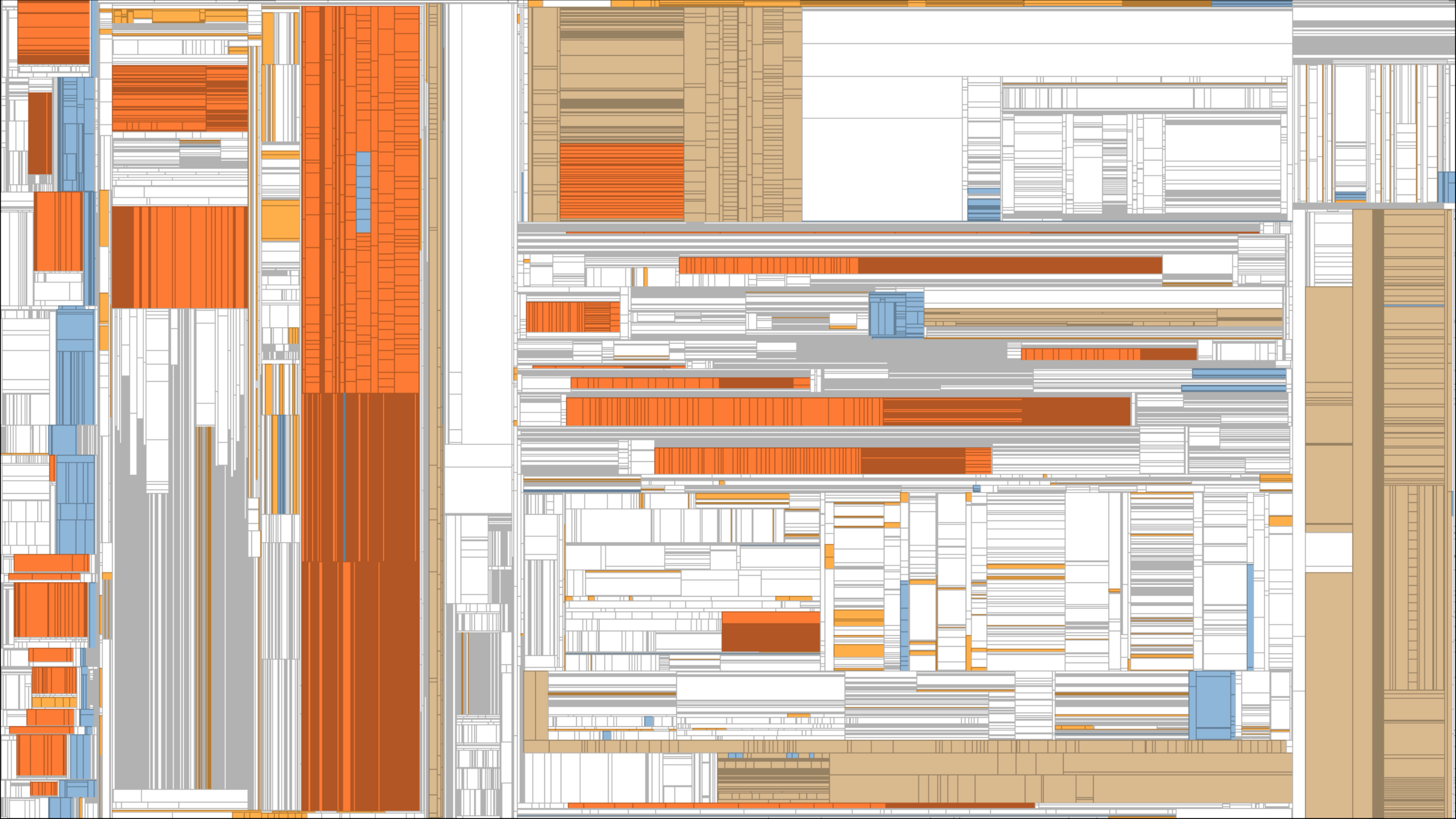


Generated Code



Generated Code







Directory Organization



Technologies



Technology	Version	License	...
Apache Commons	1.9.0	Apache 2.0	...
Angular	9	MIT	...
dom4j	2.1.3	Apache-style	...
...

```
dependencies {
    // Include all jar-files in the 'lib' folder as dependencies
    implementation fileTree(dir: 'lib', includes: ['*.jar'])

    implementation group: 'org.apache.commons', name: 'commons-csv', version: '1.9.0'
    implementation 'com.h2database:h2-mvstore:1.4.200'

    implementation group: 'org.apache.tika', name: 'tika-core', version: '1.24.1'

    // required for reading write-protected PDFs - see
    // https://github.com/JabRef/jabref/pull/942#issuecomment-209252635
    implementation 'org.bouncycastle:bcprov-jdk15on:1.65.01'

    implementation 'commons-cli:commons-cli:1.4'

    // For Java 9+ compatibility, we include a bundled version of the libreoffice
    // See https://bugs.documentfoundation.org/show_bug.cgi?id=117331#c8 for bac
    // information
    // Use the task bundleLibreOffice to update the bundled jar
    // DO NOT CHANGE THE libreoffice PREFIX
    libreoffice 'org.libreoffice:juh:6.4.3'
    libreoffice 'org.libreoffice:jurt:6.4.3'
    libreoffice 'org.libreoffice:ridl:6.4.3'
    libreoffice 'org.libreoffice:unoapi:6.4.3'
}
```

```
package com.itextpdf.server.utility;

import java.io.ByteArrayInputStream;
import java.io.ByteArrayOutputStream;
import java.io.IOException;
import java.io.InputStream;


import com.itextpdf.text.Document;
import com.itextpdf.text.DocumentException;
import com.itextpdf.text.pdf.PdfContentByte;
import com.itextpdf.text.pdf.PdfImportedPage;
import com.itextpdf.text.pdf.PdfReader;
import com.itextpdf.text.pdf.PdfWriter;

public class MyPdfWriter {
    public static void write() {
```

- dom4j
- iText PDF
- Windows Forms
- Angular
- MySQL
- SAP Advantage Data Server
- TypeScript
- Java
- Visual Objects



EN ▼ 🔍


☰

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So erstellen Sie Ihr System
Eigene Bibliotheken erstellen
Add-Ons entwickeln
Der Einsatz der APIs

Visual Objects A DEVELOPER'S GUIDE

CA-Objektentwicklung

Gebraucht: 200,00 €
GRATIS Lieferung: 14. - 16. Jul.
Siehe Details.
Lieferrn an Florian - 81249 München
Gebraucht: Sehr gut | Details
Verkauft von Regateo

In den Einkaufswagen

Auf die Liste

SAP | Community | Topics | Answers | Blogs | Events | Programs | Resources | What

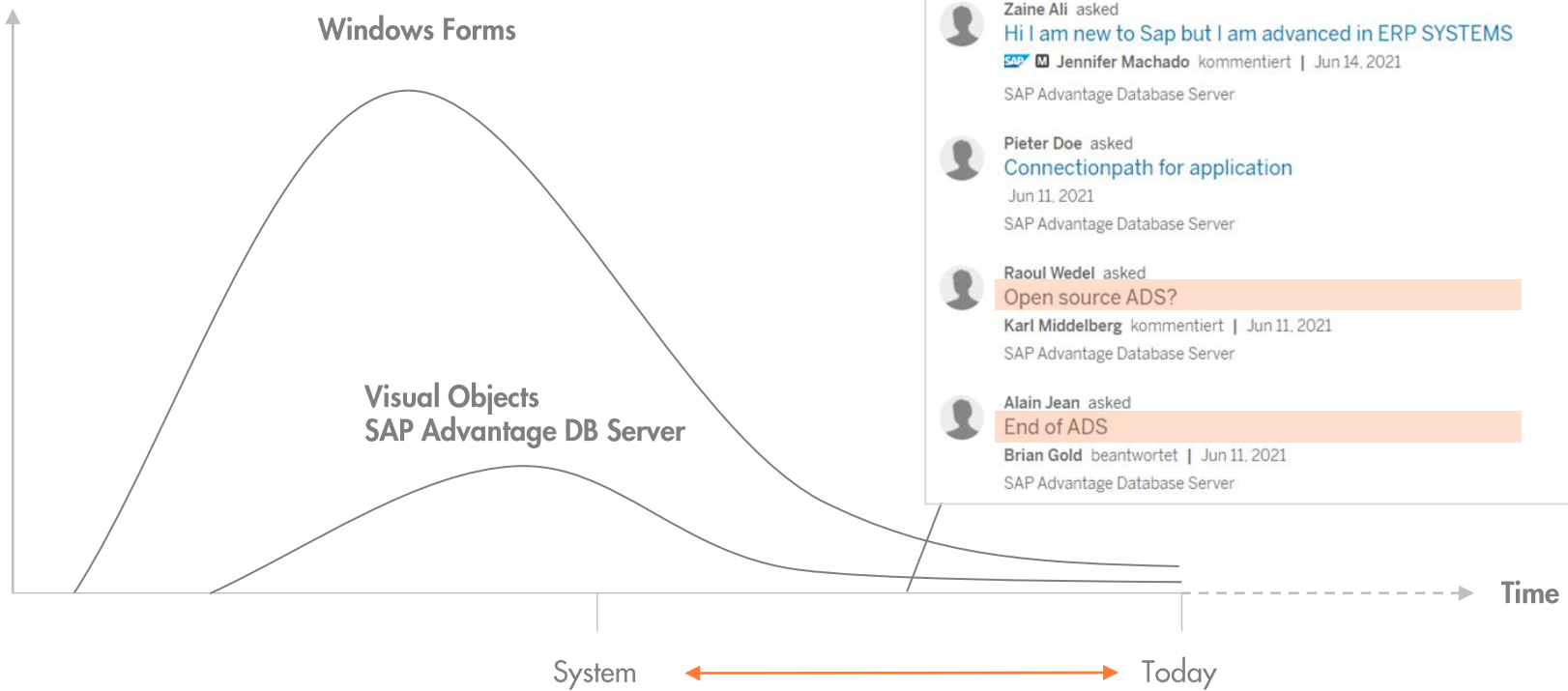
SAP Advantage Database Server

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	Brian Gold beantwortet Jun 11, 2021 SAP Advantage Database Server		

Spread
≈
Available Developers
Recent Knowledge
Integratability
Tool Support
...





Directory Organization

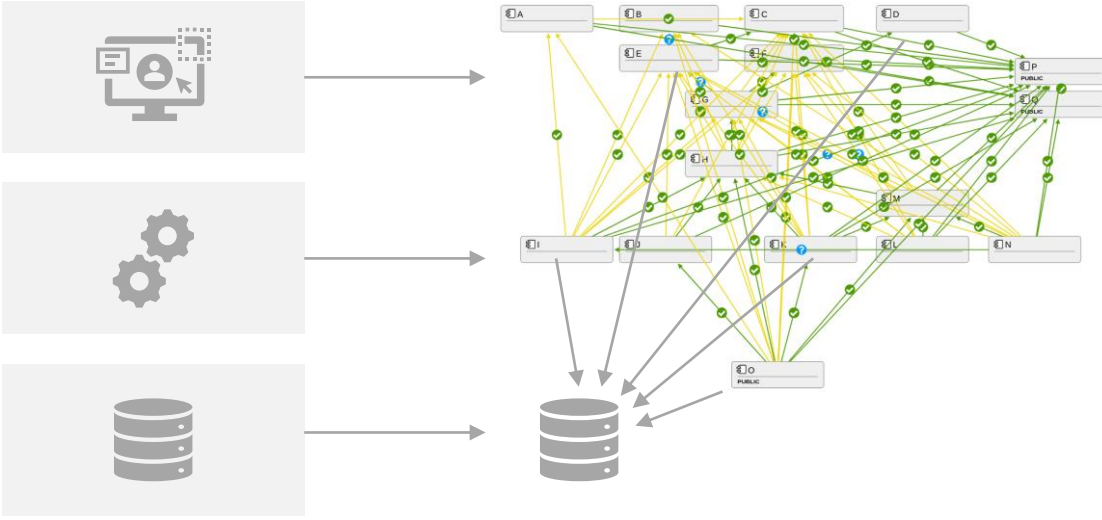


Technologies



Database Architecture

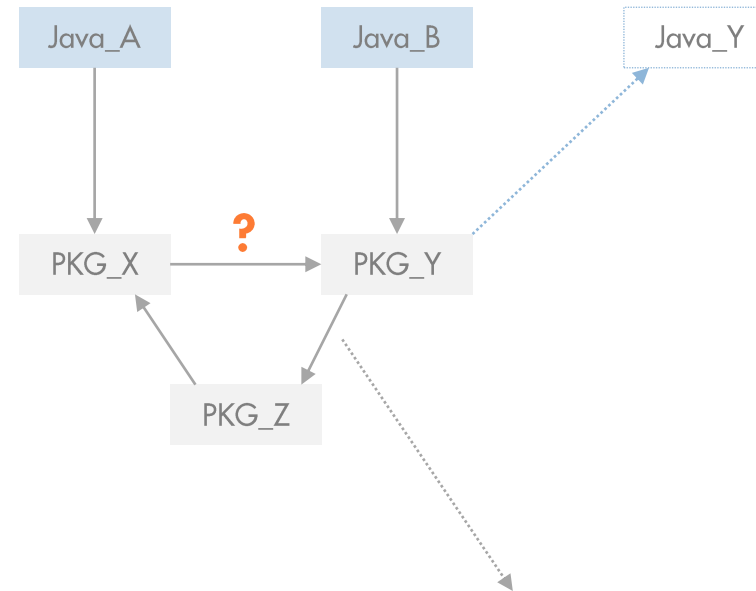




1,200,000+
Lines of Code



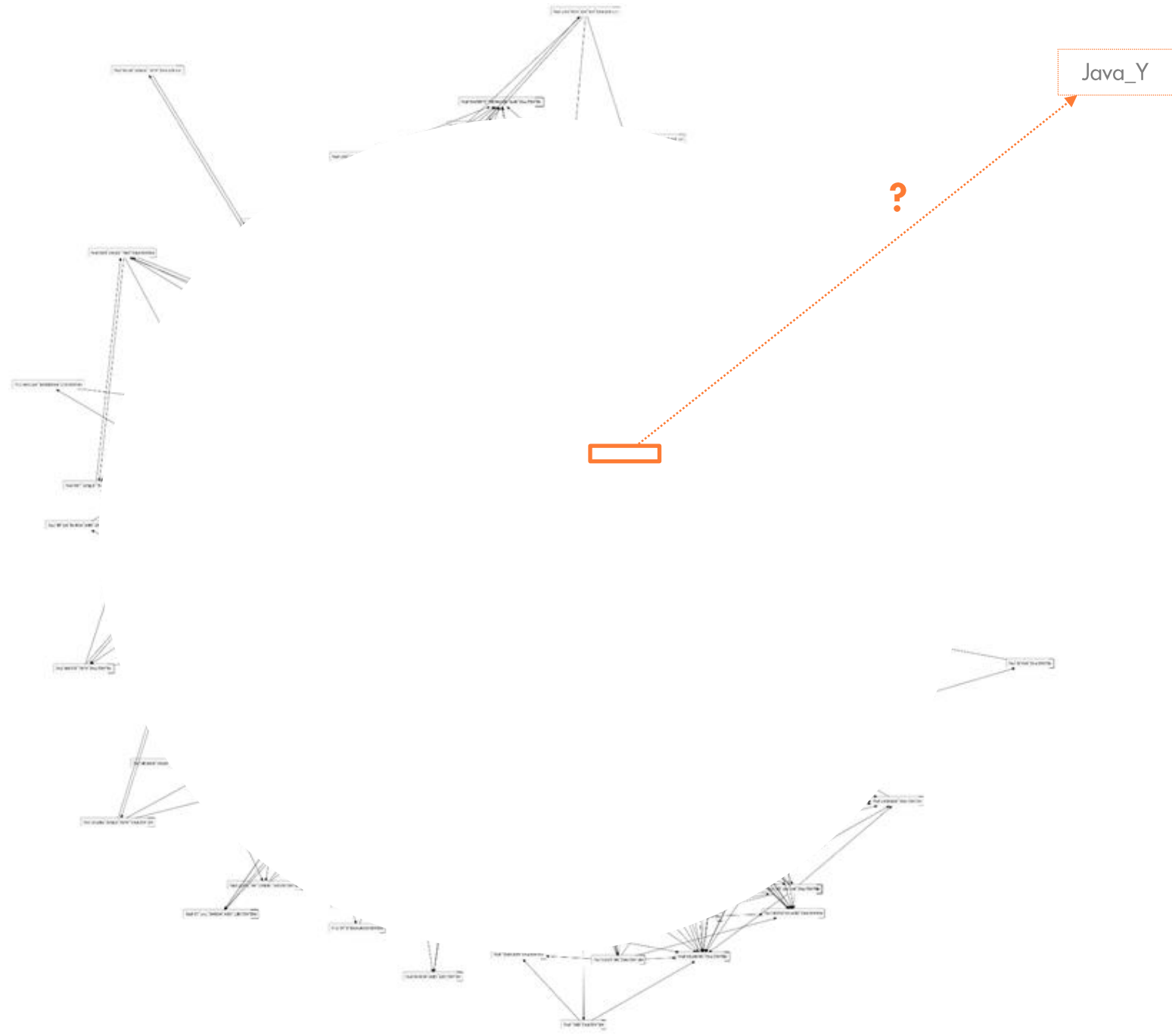
Oracle Database 12c



```
> SELECT * FROM DBA_DEPENDENCIES
```


161

PL/SQL Packages





Directory Organization



Technologies



Database Architecture



Application Clones



```

125     }
126
127     private static void addResourceFile(String name, String resource, ZipOutput
128         ZipEntry zipEntry = new ZipEntry(name);
129         out.putNextEntry(zipEntry);
130         OpenDocumentSpreadsheetCreator.addFromResource(resource, out);
131         out.closeEntry();
132     }
133
134     private static void addFromResource(String resource, OutputStream out) {
135         URL url = OpenDocumentSpreadsheetCreator.class.getResource(resource);
136         try (InputStream in = url.openStream()) {
137             byte[] buffer = new byte[256];
138             synchronized (out) {
139                 while (true) {
140                     int bytesRead = in.read(buffer);
141                     if (bytesRead == -1) {
142                         break;
143                     }
144                     out.write(buffer, 0, bytesRead);
145                 }
146             }
147         } catch (IOException e) {
148             LOGGER.warn("Cannot get resource", e);
149         }
150     }
151 }
152

```

```

105     }
106
107     private static void addResourceFile(String name, String resource, ZipOutput
108         ZipEntry zipEntry = new ZipEntry(name);
109         out.putNextEntry(zipEntry);
110         OpenOfficeDocumentCreator.addFromResource(resource, out);
111         out.closeEntry();
112     }
113
114     private static void addFromResource(String resource, OutputStream out) {
115         URL url = OpenOfficeDocumentCreator.class.getResource(resource);
116         try (InputStream in = url.openStream()) {
117             byte[] buffer = new byte[256];
118             synchronized (out) {
119                 while (true) {
120                     int bytesRead = in.read(buffer);
121                     if (bytesRead == -1) {
122                         break;
123                     }
124                     out.write(buffer, 0, bytesRead);
125                 }
126             }
127         } catch (IOException e) {
128             LOGGER.warn("Cannot get resource", e);
129         }
130     }
131 }
132

```




Clone Coverage

0% 100%



Commons

A

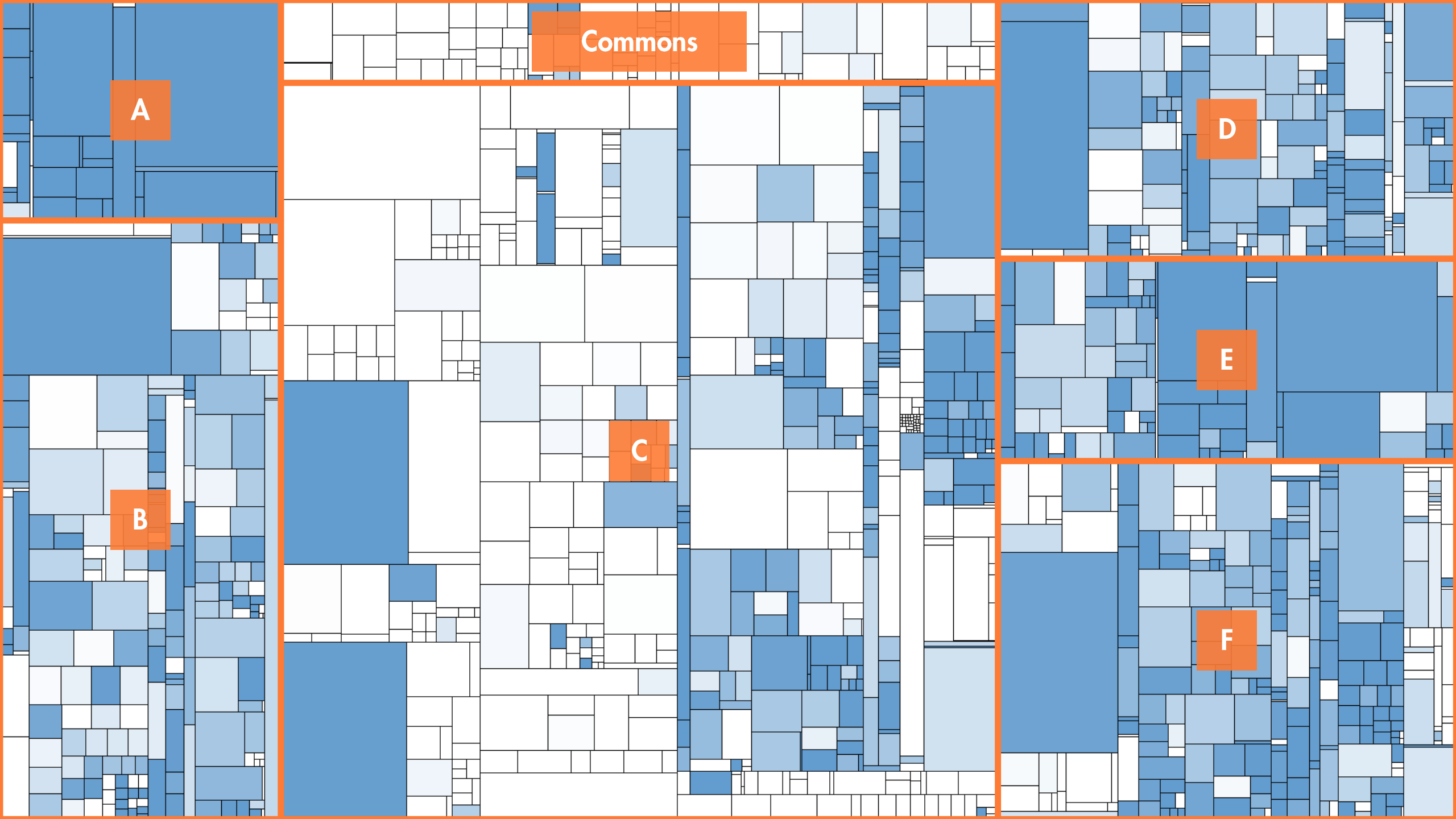
D

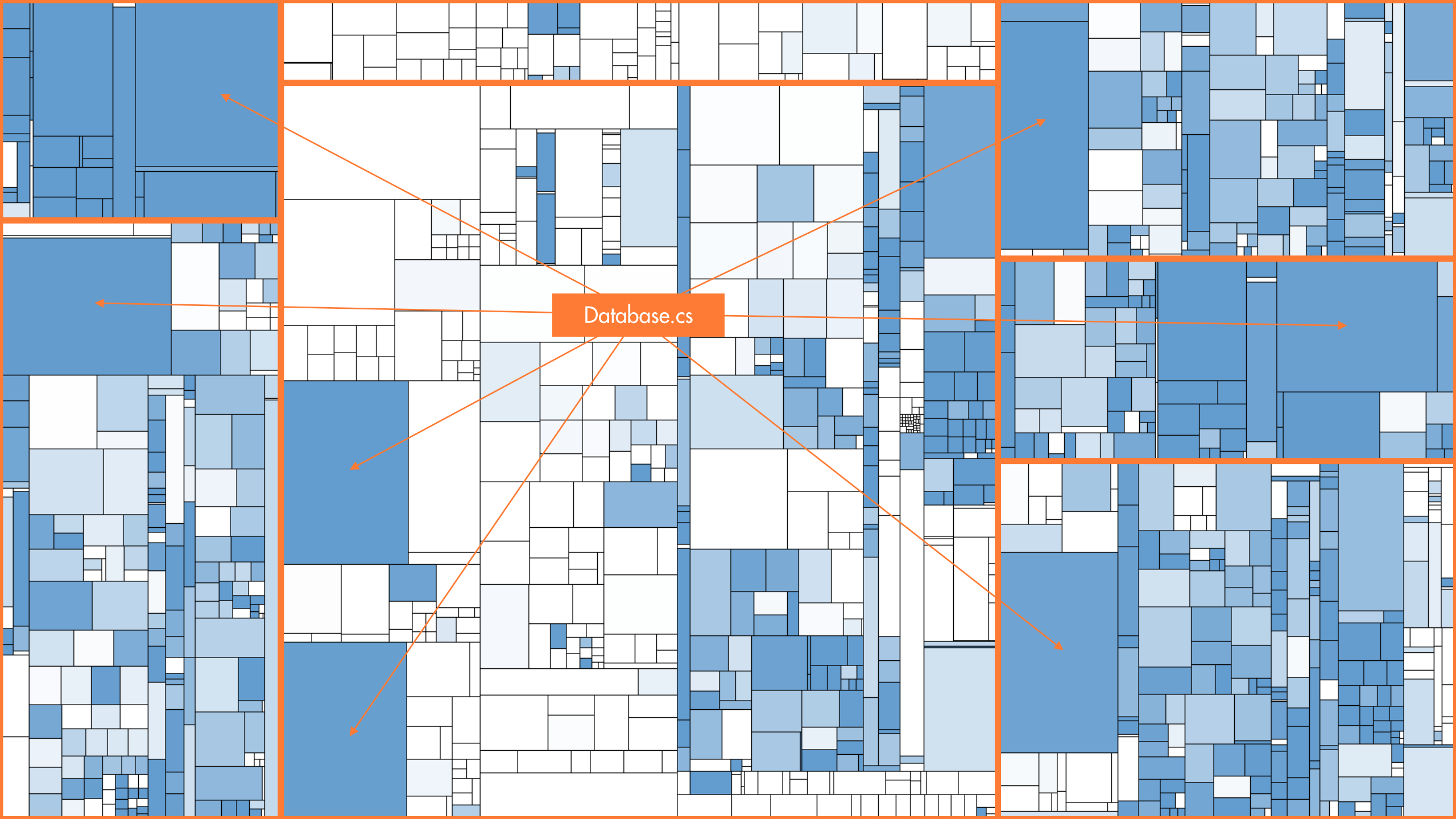
E

C

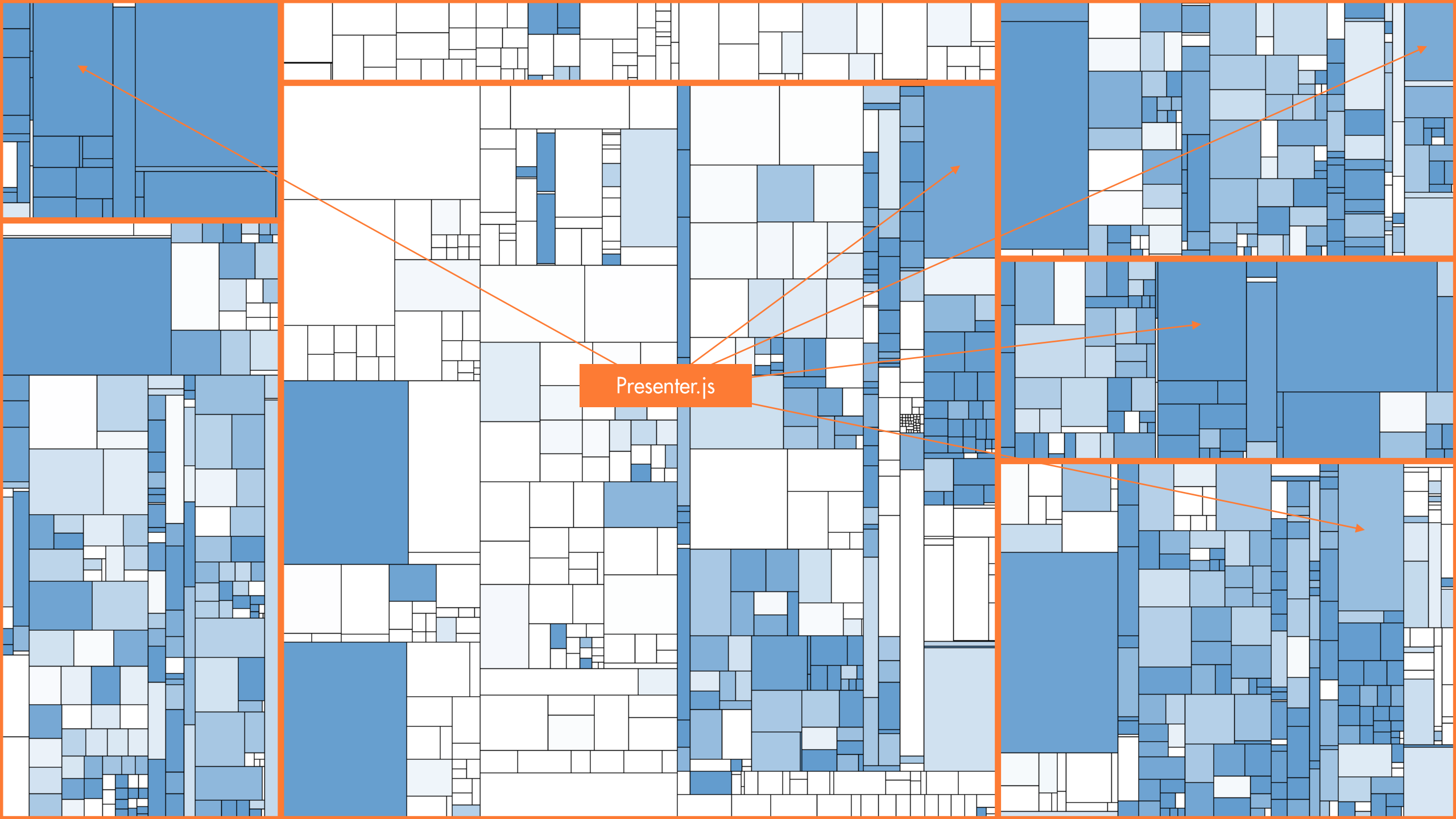
B

F





Database.cs



Presenter.js

Commons

A

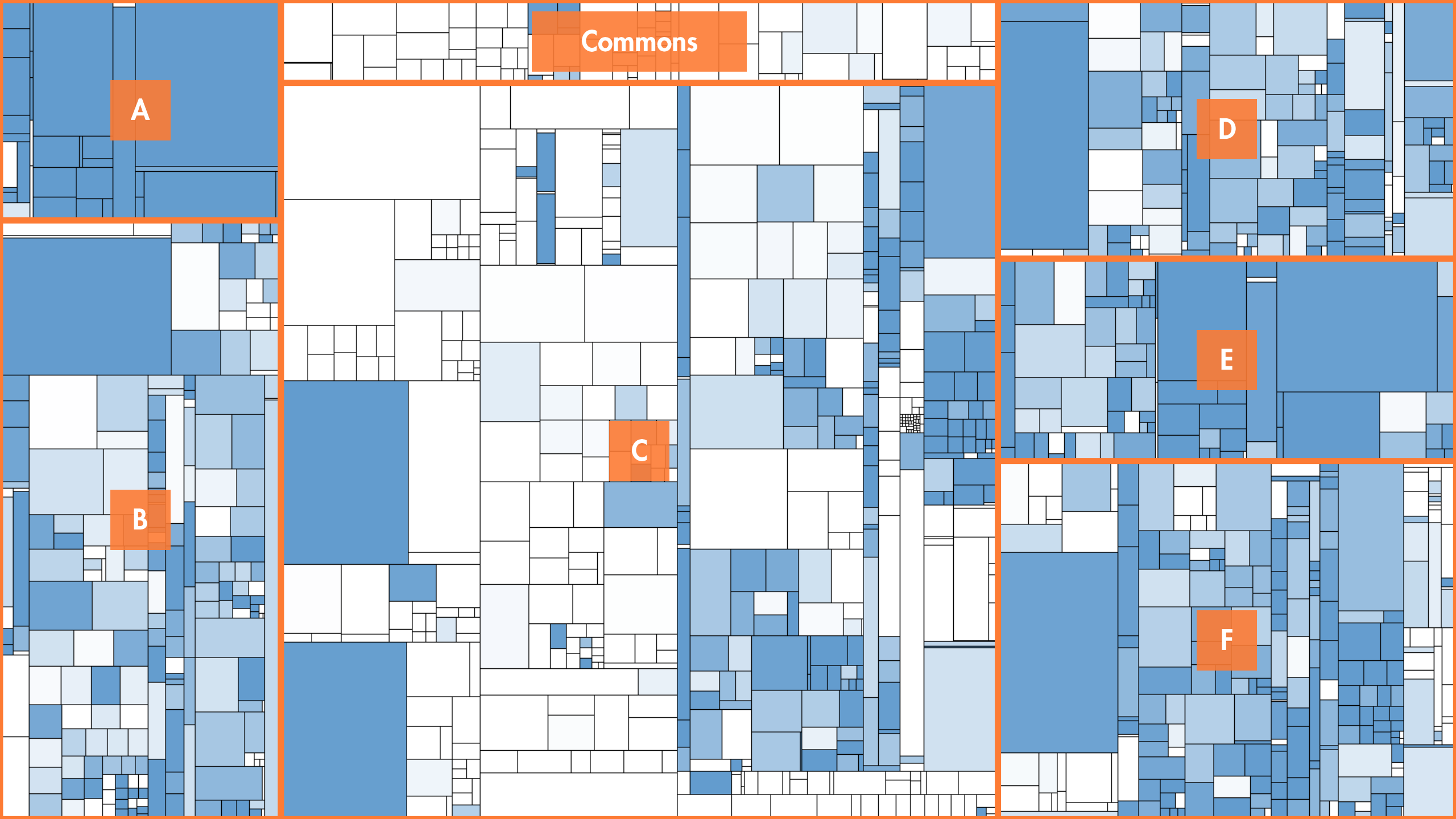
D

E

C

B

F



Commons

A

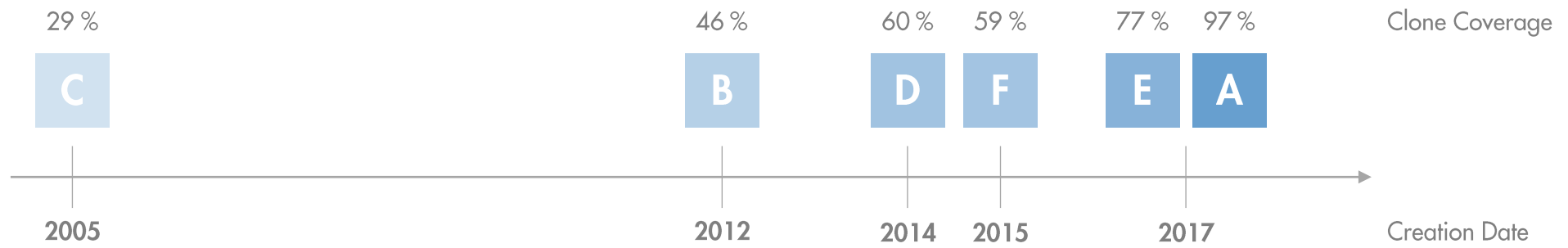
D

E

F

C

B



CQSE-Workshop

Softwareaudits: Qualität unter der Lupe



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Directory Organization



Technologies



Database Architecture



Application Clones



CQSE-Workshop

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