

## Jasper Report SubReport 實作

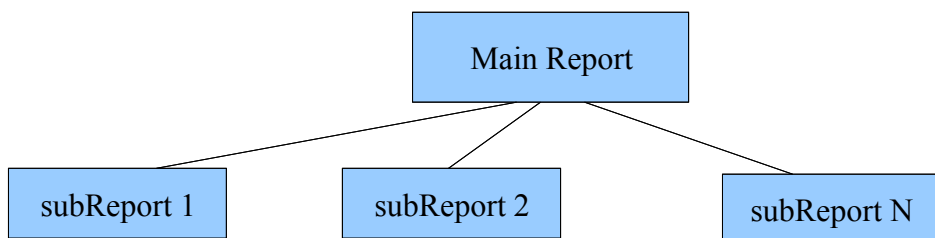
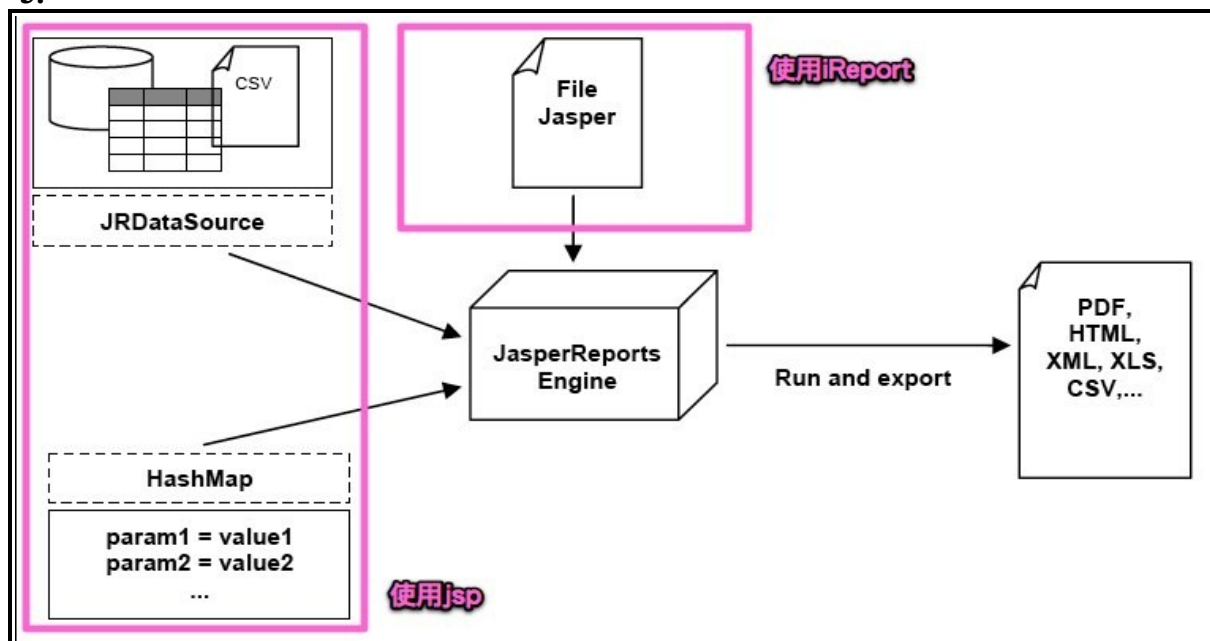
### 1. 需求：

產出類似報告書的 PDF，這邊採用的作法是使用 Jasper Report 的 SubReport 來實作這樣的需求。

相信專案上應該會有遇過一個問題，有時候客戶要下載的 PDF 並不是一個簡單的 Report 而已，複雜點可能要下載報告書之類的需求，這個時候若採用單一個 Jasper 就無法滿足這樣的功能。這樣的解法，目前我知道的除了直接用 iText（因為很麻煩，所以不建議）來做外，最簡單的做法就是用 SubReport 了。

### 2. 概念圖

3.



### 3. 透過 Jsp 產 PDF

- JSP

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">

<%@ page import="java.sql.*"%>
<%@ page import="com.bean.priceDAO"%>
<%@ page import="java.util.*"%>
<%@ page import="java.io.*"%>
<%@ page import="net.sf.jasperreports.engine.*"%>

<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>JSP Page</title>
</head>
<body>
<%
//取出價格 List
priceDAO dao = new priceDAO();
//取出 Customer List
com.bean.customerDAO customerDAO = new com.bean.customerDAO();

List price_list = dao.rundata();
List cust_List = customerDAO.rundata();

Map<String, Object> par = new HashMap<String, Object>();
par.put("title", "這是報表 Title");
par.put("User", "Administrator User");

//main Report
File jasperFile = new
File(config.getServletContext().getRealPath("jasper/mainReport.jasper"));

//sub Report
File subjasperFile1 = new File(config.getServletContext().getRealPath("jasper/subReport1.jasper"));
File subjasperFile2 = new File(config.getServletContext().getRealPath("jasper/subReport2.jasper"));

try {

JasperReport jr_main = (JasperReport) net.sf.jasperreports.engine.util.JRLoader.loadObject(jasperFile);
JasperReport jr_sub1 = (JasperReport) net.sf.jasperreports.engine.util.JRLoader.loadObject(subjasperFile1);
JasperReport jr_sub2 = (JasperReport) net.sf.jasperreports.engine.util.JRLoader.loadObject(subjasperFile2);

//main
net.sf.jasperreports.engine.JRDataSource jrds = new net.sf.jasperreports.engine.JREmptyDataSource();
jrds = new net.sf.jasperreports.engine.data.JRMapCollectionDataSource(price_list);

//cqm1
net.sf.jasperreports.engine.JRDataSource jrds1 = new net.sf.jasperreports.engine.JREmptyDataSource();
jrds1 = new net.sf.jasperreports.engine.data.JRMapCollectionDataSource(price_list);
```

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```
//cqm2
net.sf.jasperreports.engine.JRDataSource jrds2 = new net.sf.jasperreports.engine.JREmptyDataSource();
jrds2 = new net.sf.jasperreports.engine.data.JRMapCollectionDataSource(cust_List);

par.put("subjasperFile1", jr_sub1);
par.put("subjasperFile2", jr_sub2);
par.put("REPORT_DATA_SOURCE1", jrds1);
par.put("REPORT_DATA_SOURCE2", jrds2);

net.sf.jasperreports.engine.JasperPrint jp = JasperFillManager.fillReport(jr_main, par, jrds);
// net.sf.jasperreports.engine.JasperPrint jp= JasperFillManager.fillReport(jr, par,jrds);
byte[] bytes = net.sf.jasperreports.engine.JasperExportManager.exportReportToPdf(jp);

System.out.println("[report size=" + ((bytes == null) ? "null" : "" + bytes.length) + "]");

response.reset();

response.setHeader("Content-Disposition", "inline;filename=test.pdf");

if (bytes != null && bytes.length != 0) {
    response.setContentLength(bytes.length);
    ServletOutputStream os = response.getOutputStream();
    os.write(bytes, 0, bytes.length);
} else {
    throw new IllegalStateException("fail to create pdf file");
}

response.flushBuffer();

} catch (Exception ex) {
    out.println("=== pdf error ===");
}

%>
</body>
</html>
```

- iReport 設定

MainReport 的版面設定

This is Main Report	
\$F{userid}	\$F{price}
SubReport 的區塊	
SubReport 的區塊	
summary	

每一個subReport都用一個 group的區塊來放置

Parameters 的設定

Fields Variables Parameters			
Parameter Name	Class Type	Use as a Pro	Bu
REPORT_PARAMETERS_MAP	java.util.Map	no	yes
REPORT_CONNECTION	java.sql.Connection	no	yes
REPORT_MAX_COUNT	java.lang.Integer	no	yes
REPORT_DATA_SOURCE	net.sf.jasperreports.engine.JRDataSource	no	yes
REPORT_SCRIPTLET	net.sf.jasperreports.engine.JRAbstractScrip...	no	yes
REPORT_LOCALE	java.util.Locale	no	yes
REPORT_RESOURCE_BUNDLE	java.util.ResourceBundle	no	yes
REPORT_TIME_ZONE	java.util.TimeZone	no	yes
REPORT_VIRTUALIZER	net.sf.jasperreports.engine.JRVirtualizer	no	yes
REPORT_CLASS_LOADER	java.lang.ClassLoader	no	yes
REPORT_URL_HANDLER_FACTORY	java.net.URLStreamHandlerFactory	no	yes
REPORT_FORMAT_FACTORY	net.sf.jasperreports.engine.util.FormatFactory	no	yes
IS_IGNORE_PAGINATION	java.lang.Boolean	no	yes
HIBERNATE_SESSION	org.hibernate.Session	no	yes
XML_DATA_DOCUMENT	org.w3c.dom.Document	no	yes
JPA_ENTITY_MANAGER	org.hibernate.Session	no	yes
JPA_QUERY_HINTS_MAP	net.sf.jasperreports.engine.JRDataSource	no	yes
MONDRIAN_CONNECTION	mondrian.olap.Connection	no	yes
subjasperFile2	net.sf.jasperreports.engine.JasperReport	no	no
REPORT_DATA_SOURCE2	net.sf.jasperreports.engine.JRDataSource	no	no
REPORT_DATA_SOURCE1	net.sf.jasperreports.engine.JRDataSource	no	no
subjasperFile1	net.sf.jasperreports.engine.JasperReport	no	no

每個subReport都必須有一組 JRDataSource 及 JasperReport

### 每個 SubReport 的設定

The screenshot shows a configuration window titled 'mainReport' with four tabs: 'Common', 'Subreport', 'Subreport (Other)', and 'All'. The 'Subreport' tab is selected. In the 'Subreport Expression Class' section, a dropdown menu shows 'net.sf.jasperreports.engine.JasperReport'. Below it, the 'Subreport Expression' text field contains the code '\$P{subjasperFile1}'. At the bottom, the 'Subreport parameters' section contains a table with two columns: 'Parameter' and 'Expression'. The table has one row with 'REPORT\_DATA\_SOURCE' in the 'Parameter' column and '\$P{REPORT\_DATA\_SOURCE1}' in the 'Expression' column. An 'Add' button is located below the table. A pink rectangular box highlights the 'Subreport Expression Class' dropdown, the 'Subreport Expression' text field, and the first row of the 'Subreport parameters' table. A pink text annotation is overlaid on the bottom of the table.

mainReport

Common Subreport Subreport (Other) All

Subreport Expression Class

net.sf.jasperreports.engine.JasperReport

Subreport Expression

`$P{subjasperFile1}`

Subreport parameters Subreport return values

Parameter	Expression
REPORT_DATA_SOURCE	<code>\$P{REPORT_DATA_SOURCE1}</code>

Add

必須與Parameters的設定一樣  
但DataSource名稱必須為Report\_DATA\_SOURCE