

Javalin

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1

Kafka Connect

Data Server

JavaEasyExcel

EasyExcel

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<https://javalin.io/documentation#getting-started>

1 Javalin Maven

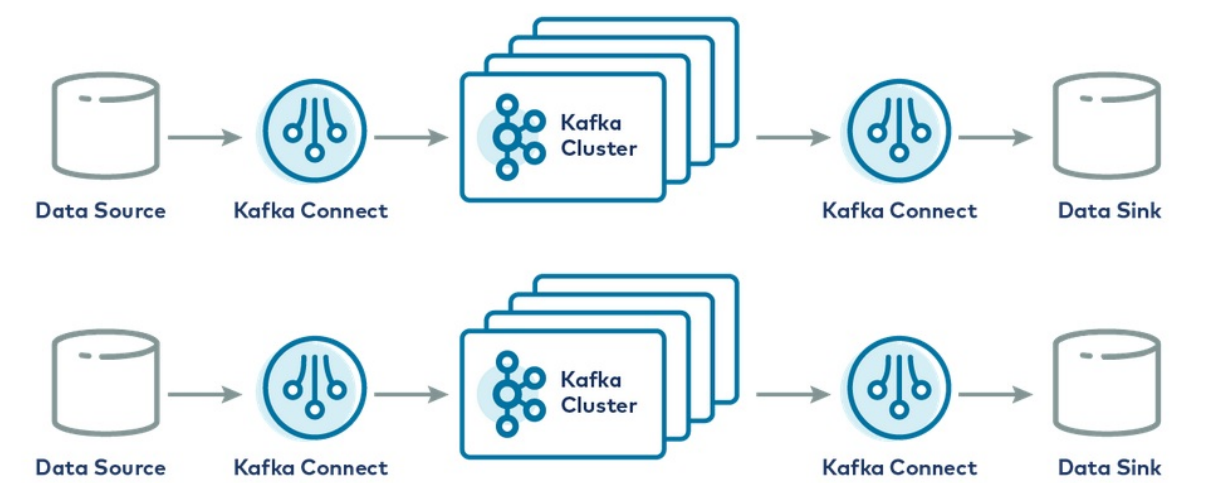
2 guice

Kafka Connect

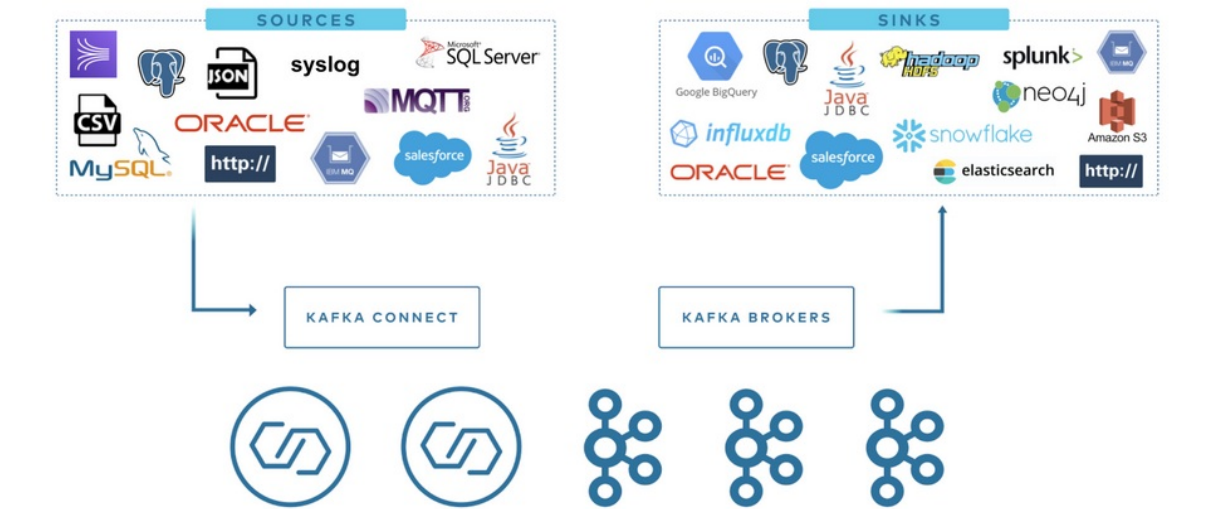
Kafka Connect

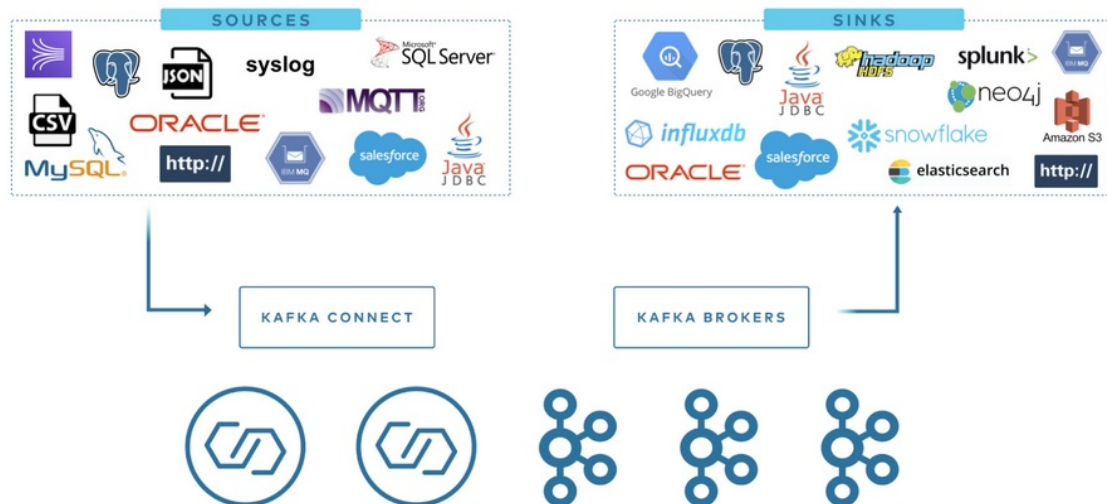
Kafka Connect

Kafka Connect Apache Kafka Kafka Kafka Connect
Kafka, Kafka Connect Kafka Source Connector, Sink Connector
Source Connector Sink Connector Kafka BrokerSource Connector
Kafka ConnectSink Connector Kafka Connect



Source Connector ☐ Kafka ConnectSink Connector ☐ Kafka Connect ☐





Kafka Connector Kafka Connect Schema
Connector Kafka

Kafka data pipeline

- Kafka Databend Mysql Kafka
- Elasticsearch Kafka Kafka Elasticsearch Kafka

Kafka Connect

- Source Connect Kafka
- Sink Connect Kafka

Kafka [Confluent Hub](#) Connector [Elasticsearch Service Sink Connector](#),
[Amazon Sink Connector](#), [HDFS Sink Connector](#) Kafka

Kafka Connect ROI

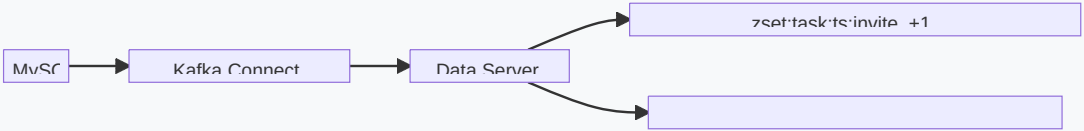
Kafka Connect

- 1 Kafka Connect MySQL topic
- 2Data Server kafka-clients

<!-- <https://mvnrepository.com/artifact/org.apache.kafka>

```
a/kafka-clients -->  
<dependency>  
  <groupId>org.apache.kafka</groupId>  
  <artifactId>kafka-clients</artifactId>  
  <version>3.8.0</version>  
</dependency>
```

3Data Server



- 4

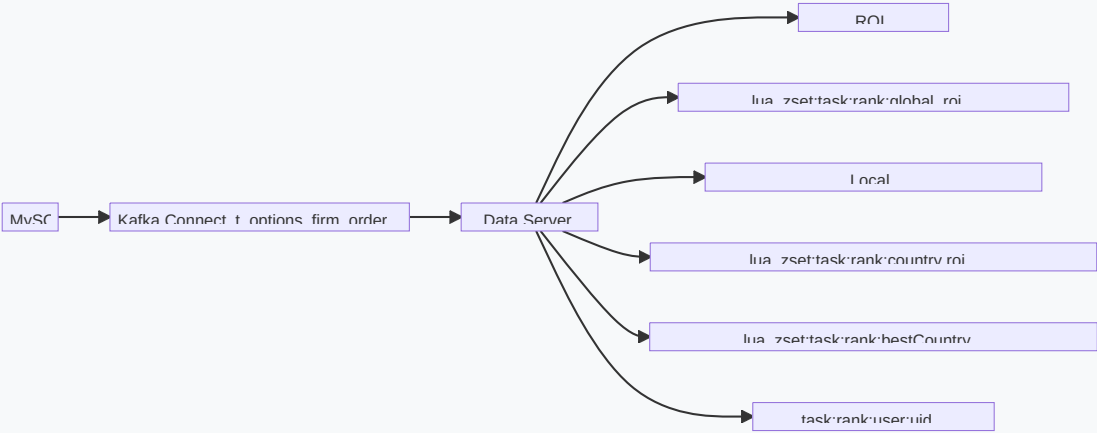
Kafka Connect ROI

ROI

- 1 Kafka Connect MySQL topic
- 2 Data Server kafka-clients

```
<!-- https://mvnrepository.com/artifact/org.apache.kafka/kafka-clients -->
<dependency>
  <groupId>org.apache.kafka</groupId>
  <artifactId>kafka-clients</artifactId>
  <version>3.8.0</version>
</dependency>
```

3 Data Server ROI = profit_loss/(price*quantity)



- 4

Data Server

Data Server

Redis

```
protected JedisPooled provideRedis() {
    var poolConfig = new GenericObjectPoolConfig<Connection>()
    ;
    //
    poolConfig.setMaxWaitMillis(config.getMaxWaitMillis());
    //
    poolConfig.setMaxTotal(config.getMaxTotal());
    //
    poolConfig.setMaxIdle(config.getMaxIdle());
    //
    poolConfig.setMinIdle(config.getMinIdle());
    // ( PoolableObjectFactory.validateObject() )
    poolConfig.setTestOnBorrow(config.isTestOnBorrow());
    // ( PoolableObjectFactory.validateObject() )
    poolConfig.setTestOnReturn(config.isTestOnReturn());
    //
    poolConfig.setTestWhileIdle(config.isTestWhileIdle());
    //
    poolConfig.setMinEvictableIdleTimeMillis(config.getMinEvictionIdleTimeMillis());
    //
    poolConfig.setTimeBetweenEvictionRunsMillis(config.getTimeBetweenEvictionRunsMillis());
    //
    poolConfig.setNumTestsPerEvictionRun(-1);

    var clientConfig = DefaultJedisClientConfig.builder()
        .user(config.getUser())
        .password(config.getPassword())
        .database(config.getDatabase())
        .build();
    var hostPort = new HostAndPort(config.getAddress(), config.getPort());
    return new JedisPooled(poolConfig, hostPort, clientConfig)
    ;
}
```

- 1

- 2

Hikari

```
private DataSource createDatasource(JdbcConfig conf) {
    var config = new HikariConfig();
    config.setJdbcUrl(conf.getUrl());
    config.setUsername(conf.getUser());
    config.setPassword(conf.getPass());
    //config.setThreadFactory(Thread.ofVirtual().factory());
    config.setConnectionTestQuery(conf.getConnectionTestQuery(
));
    config.setMaxLifetime(conf.getMaxLifetime());
    config.setMaximumPoolSize(conf.getMaxPoolSize());
    config.setMinimumIdle(conf.getMinIdle());
    config.setIdleTimeout(conf.getIdleTimeout());
    return new HikariDataSource(config);
}
```

-
-

1

```
"" inviteDao.aggInvites Const.INVITE_LEVELS
```

```
public void run() {
    var nowTs = DateUtil.current();
    var lastTs = redisDao.getLong(RedisKey.inviteTaskTs(), nul
1);

    var result = inviteDao.aggInvites(lastTs);
    var levels = Const.INVITE_LEVELS;
    for (var it : result.entrySet()) {
        var inviteCount = it.getValue().getCount();
        for (var n : levels) {
            if (inviteCount < n) continue;
            //n, ,
            achievementDao.add(it.getKey(), Const.ACH_INVITE,
n.toString(), inviteCount.toString());
            break;
        }
    }
```

```

    }

    redisDao.setLong(RedisKey.inviteTaskTs(), nowTs);
}

```

2ROI

```
roiRank24h t_options_firm_ordert_user
```

```

SELECT * FROM
(
    SELECT
        {0}.id,
        {0}.user_id uid,
        {1}.user_name un,
        {1}.country ct,
        (profit_loss/(price*quantity)) roi,
        @rn := IF(@prev = user_id, @rn + 1, 1) AS rn,
        @prev := user_id
    FROM {0}
    JOIN (SELECT @prev := NULL, @rn := 0) AS vars
    LEFT JOIN {1} on {0}.user_id = {1}.id
    WHERE {2}
    ORDER BY {0}.user_id, roi desc
) AS T1
WHERE rn = 1
order by roi desc

```

```
roiRank24h cacheRoiRank24hInRedis
```

-
- Redis
-

```

//
public void run() {
    var nowTs = DateUtil.current();
    var ranks = orderDao.roiRank24h(nowTs-Const.DAY_MS, config
.getBaseToken(), config.getQuoteToken());
    cacheDao.cacheRoiRank24hInRedis(ranks, 200);
}

//
public void cacheRoiRank24hInRedis(List<RankingVo> ranks, int
limit) {

```

```

var countries = countryDao.all();
var counter = new Counter();
var countryMap = new HashMap<String, List<RankingVo>>();
var bested = new HashSet<String>();
var best = new ArrayList<RankingVo>();
var global = new ArrayList<RankingVo>();
for (var i = 0; i < ranks.size(); i++) {
    var it = ranks.get(i);
    it.setGr(i+1); //
    if(i < limit) global.add(it);

    var isWhite = countries.containsKey(it.getCt());
    var country = isWhite ? it.getCt() : "Local";

    var countryRank = counter.incr(country);
    it.setLr(countryRank);//
    if(!countryMap.containsKey(country)) {
        countryMap.put(country, new ArrayList<>());
    }

    var local = countryMap.get(country);
    if(local.size() <= limit) local.add(it);

    //best country
    if(isWhite && !bested.contains(country)) {
        bested.add(country);
        best.add(it);
    }

    worker.submit(() -> {
        redisDao.setJson(RedisKey.userRank(it.getUid()), i
t, config.getRankExpiresSec(), false);
    });
}

redisDao.setJson(RedisKey.globalRank(), global, config.get
RankExpiresSec(), true);
redisDao.setJson(RedisKey.bestCountry(), best, config.getR
ankExpiresSec(), true);
countryMap.forEach((name, rank) -> {
    redisDao.setJson(RedisKey.countryRank(name), rank, con
fig.getRankExpiresSec(), true);
});
}

```

zset

- Kafka Connect MySQL Kafka MySQL >> Kafka >> Redis

- RocketMQ Connect MySQL RocketMQ MySQL >> Kafka >> Redis
- Canal MySQL binlog MySQL >> Canal >> Redis

```
redisDao.setJson() redis set json
```

- 50 >> >> >> top50, zset zset top50,
- zset

JavaEasyExcel

JavaEasyExcel

xcelEasyExcel

www.jb51.net/article...
github.com/alibaba/e...

```
const download = () => {
  axios({
    method: 'GET',
    url: config.http.baseUrl + '/templateDownload',
    responseType: 'blob',
  })
  .then(function (res) {
    const content = res.data
    const blob = new Blob([content], { type: "application/application/vnd
    const downloadElement = document.createElement("a");
    const href = window.URL.createObjectURL(blob);
    downloadElement.href = href;
    downloadElement.download = decodeURI(res.headers['filename']);
    document.body.appendChild(downloadElement);
    downloadElement.click();
    document.body.removeChild(downloadElement); //
    window.URL.revokeObjectURL(href); // blob
  })
}
```

excelspringbootjar

```
@Override
public void templateDownload(HttpServletResponse response, HttpServletRequest
  //
  String fileName = ".xlsx" ;
  //
  String filePath = "/template/template.xlsx";
  TemplateDownloadUtil.download(response, request, fileName, filePath);
}
```

```

import lombok.extern.slf4j.Slf4j;
import org.springframework.core.io.ClassPathResource;

import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import java.io.InputStream;
import java.io.OutputStream;
import java.net.URLEncoder;

/**
 *
 * @author
 * @date 2021/05/20 9:20
 */
@Slf4j
public class TemplateDownloadUtil {

    public static void download(HttpServletResponse response, HttpServletRequest request) {
        try {
            response.setContentType("application/vnd.openxmlformats-offic
            response.setCharacterEncoding("utf-8");
            // URLEncoder.encode easyexcel
            response.setHeader("Content-Disposition", "attachment; filename="
            response.setHeader("filename", URLEncoder.encode(fileName, "UTF-8")
            response.setHeader("Access-Control-Expose-Headers", "filename,Content-Dis

            //
            // String filePath = getClass().getResource("/template/template.xlsx").get
            // FileInputStream input = new FileInputStream(filePath);

            //
            ClassPathResource resource = new ClassPathResource(filePath);
            InputStream input = resource.getInputStream();
            OutputStream out = response.getOutputStream();
            byte[] b = new byte[2048];
            int len;
            while ((len = input.read(b)) != -1) {
                out.write(b, 0, len);
            }
            // Excel"xxx.xlsx""
            // response.setHeader("Content-Length", String.valueOf(input.getChannel().
            input.close();
        } catch (Exception e) {
            log.error(":" , e);
        }
    }
}

```

EasyExcel

EasyExcel

	A	B	C	D	E
	填写须知： 1. 系统自动识别Excel表格，表头必须含有“姓名”、“身份证号”、“实发金额”； 2. 带“*”为必填字段，填写后才能上传成功； 3. 若需上传其他表头，可自行在“实发金额”后添加表头，表头最多可添加20个，表头名称请控制在8个字以内； 4. 填写的表头内容不可超过30个字； 5. 实发金额支持填写到2位小数； 6. 每次导入数据不超过5000条。				
1	表头示例：				
2	*姓名	*身份证号	*实发金额		
3					
4					
5					
6					
7					
8					
9					
10					CSDN @yupengfei112233

```

import com.alibaba.excel.context.AnalysisContext;
import com.alibaba.excel.event.AnalysisEventListener;
import com.alibaba.fastjson.JSON;
import com.alibaba.fastjson.JSONObject;
import lombok.Data;
import lombok.extern.slf4j.Slf4j;

import java.time.LocalDateTime;
import java.util.ArrayList;
import java.util.HashMap;
import java.util.List;
import java.util.Map;
import java.util.stream.Collectors;

/**
 * excel
 *
 * @author yupf
 * @description Listener springexcelnew,spring
 */
@Slf4j
@Data
public class BatchReadListener extends AnalysisEventListener<Map<Integer,

    /**
     * 500list
     */
    private static final int BATCH_COUNT = 500;
    //Excel
    private List<Map<Integer, Map<Integer, String>>> list = new ArrayList
    //Excel
    private Map<Integer, String> headTitleMap = new HashMap<>();

    /**
     * DAOservice

```

```

    */
    private DbFileBatchService dbFileBatchService;
    private DbFileContentService dbFileContentService;
    private FileBatch fileBatch;
    private int total = 0;

    /**
     * spring,Listenerspring
     */
    public BatchReadListener(DbFileBatchService dbFileBatchService, DbFileContentService dbFileContentService) {
        this.dbFileBatchService = dbFileBatchService;
        this.dbFileContentService = dbFileContentService;
        this.fileBatch = fileBatch;
    }

    /**
     *
     *
     * @param data one row value. Is is same as {@link AnalysisContext#readRowHolder}
     * @param context
     */
    @Override
    public void invoke(Map<Integer, String> data, AnalysisContext context) {
        log.info("{} ", JSON.toJSONString(data));
        total++;
        Map<Integer, Map<Integer, String>> map = new HashMap<>();
        map.put(context.readRowHolder().getRowIndex(), data);
        list.add(map);
        // BATCH_COUNT
        if (list.size() >= BATCH_COUNT) {
            saveData();
            // list
            list.clear();
        }
    }

    /**
     *
     *
     * @param context
     */
    @Override
    public void doAfterAllAnalysed(AnalysisContext context) {
        //
        saveData();
        log.info("{} ");
    }

    /**
     *
     */
    @Override
    public void invokeHeadMap(Map<Integer, String> headMap, AnalysisContext context) {
        log.info("{} ", JSONObject.toJSONString(headMap));
        headTitleMap = headMap;
    }

    /**
     *
     */

```

```

private void saveData() {
    log.info("{}" , list.size());
    FileContent fileContent = null;
    List<FileContent> fileContentList = list.stream().flatMap(
        integerMap -> integerMap.entrySet().stream().map(entrySet ->
            //entrySet.getKey()RowIndex,
            Integer rowIndex = entrySet.getKey();
            Map<Integer, String> value = entrySet.getValue();
            log.info(JSONObject.toJSONString(value));
            fileContent = new FileContent();
            fileContent.setBatchId(fileBatch.getId());
            fileContent.setBatchNo(fileBatch.getBatchNo());
            //
            fileContent.setName(value.get(0) != null ? value.get(0).trim
            fileContent.setCertNo(value.get(1) != null ? value.get(1)
            fileContent.setRealAmount(value.get(2) != null ? value.get
            //JSON
            fileContent.setFieldsValue(JSONObject.toJSONString(value)
            //rowIndex
            fileContent.setRowNum(rowIndex + 1);
            fileContent.setCreateTime(LocalDateTime.now());
            return xcSalaryFileContent;
        }
    )).collect(Collectors.toList());
    log.info(JSONObject.toJSONString(fileContentList));
    dbFileContentService.saveBatch(fileContentList);
    log.info("{}");
}
}

```

```

BatchReadListener listener = new BatchReadListener(dbFileBatchService, dbFileContents
try {
    //headRowNumber12
    EasyExcel.read(fileInputStream, listener).headRowNumber(2).sheet().doRead
} catch (Exception e) {
    log.info("EasyExcel{}" , e);
    throw new CustomException("{}");
}
//
Map<Integer, String> headTitleMap = listener.getHeadTitleMap();
//
List<String> headList = headTitleMap.keySet().stream().map(key -> {
    String head = headTitleMap.get(key);
    log.info(head);
    return head == null ? "" : head.replace("*", "");
}).collect(Collectors.toList());
//

```

EasyExcel

```

private List<List<String>> getFileHeadList( FileBatch fileBatch) {
    String head = fileBatch.getFileHead();
    List<String> headList = Arrays.asList(head.split(","));
    List<List<String>> fileHead = headList.stream().map(item ->      concatHead
    fileHead.add(concatHead(Lists.newArrayList(" " )));
    return fileHead;
}

/**
 *
 * @param headContent
 * @return
 */
private List<String> concatHead(List<String> headContent) {
    String remake = "
    "1.Excel""""""""\n"
    "2. "" "" \n"
    "3. ""208\n"
    "4.30\n"
    "5.2\n"
    "6.5000\n"
    "\n" +
    "\n"
    "\n" +
    ""
    ;
    headContent.add(0, remake);
    return headContent;
}

```

```

List<FileContent> fileContentList = dbFileContentService.list(
    Wrappers.<FileContent>lambdaQuery()
        .eq(FileContent::getBatchId, fileBatch.getId())
        .orderByAsc(FileContent::getRowNum)
);
List<List<Object>> contentList = fileContentList.stream().map(fileContent
    List<Object> rowList = new ArrayList<>();
    String fieldsValue = fileContent.getFieldsValue();
    JSONObject contentObj = JSONObject.parseObject(fieldsValue);
    for (int columnIndex = 0 , length = headList.size(); columnIndex < length
        Object content = contentObj.get(columnIndex);
        rowList.add(content == null ? "" : content);
    }
    rowList.add(fileContent.getCheckMessage());
    return rowList;
}).collect(Collectors.toList());

```

```

import com.alibaba.excel.metadata.data.DataFormatData;
import com.alibaba.excel.metadata.data.WriteCellData;
import com.alibaba.excel.write.handler.context.CellWriteHandlerContext;
import com.alibaba.excel.write.metadata.style.WriteCellStyle;
import com.alibaba.excel.write.metadata.style.WriteFont;
import com.alibaba.excel.write.style.HorizontalCellStyleStrategy;
import org.apache.poi.ss.usermodel.BorderStyle;
import org.apache.poi.ss.usermodel.HorizontalAlignment;
import org.apache.poi.ss.usermodel.IndexedColors;

import java.util.List;

/**
 *
 */
public class CellStyleStrategy extends HorizontalCellStyleStrategy {

    private final WriteCellStyle headWriteCellStyle;
    private final WriteCellStyle contentWriteCellStyle;

    /**
     *
     */
    private final List<Integer> columnIndexes;

    public CellStyleStrategy(List<Integer> columnIndexes, WriteCellStyle headWriteCell
        this.columnIndexes = columnIndexes;
        this.headWriteCellStyle = headWriteCellStyle;
        this.contentWriteCellStyle = contentWriteCellStyle;
    }

    //
    @Override
    protected void setHeadCellStyle( CellWriteHandlerContext context) {
        //
        WriteFont headWriteFont = new WriteFont();
        headWriteFont.setFontName("");
        //
        if (columnIndexes.get(0).equals(context.getRowIndex())) {
            headWriteCellStyle.setFillForegroundColor(IndexedColors.WHITE);
            headWriteCellStyle.setHorizontalAlignment(HorizontalAlignment
            headWriteFont.setFontHeightInPoints((short) 12);
            headWriteFont.setBold(false);
            headWriteFont.setFontName("");
        }else{
            headWriteCellStyle.setFillForegroundColor(IndexedColors.GREY_25_PERCENT
            headWriteCellStyle.setHorizontalAlignment(HorizontalAlignment
            headWriteFont.setFontHeightInPoints((short) 11);
            headWriteFont.setBold(false);
            headWriteFont.setFontName("");
        }
        headWriteCellStyle.setWriteFont(headWriteFont);
        DataFormatData dataFormatData = new DataFormatData();
        dataFormatData.setIndex((short)49);
        headWriteCellStyle.setDataFormatData(dataFormatData);
        if (stopProcessing(context)) {
            return;
        }
        WriteCellData<?> cellData = context.getFirstCellData();
        WriteCellStyle.merge(headWriteCellStyle, cellData.getOrCreateStyle

```

```

    }

    //
    @Override
    protected void setContentCellStyle(CellWriteHandlerContext context) {
        WriteFont contentWriteFont = new WriteFont();
        contentWriteFont.setFontName("");
        contentWriteFont.setFontHeightInPoints((short) 11);
        //
        contentWriteCellStyle.setWriteFont(contentWriteFont);
        contentWriteCellStyle.setBorderLeft(BorderStyle.THIN);
        contentWriteCellStyle.setBorderTop(BorderStyle.THIN);
        contentWriteCellStyle.setBorderRight(BorderStyle.THIN);
        contentWriteCellStyle.setBorderBottom(BorderStyle.THIN);
        DataFormatData dataFormatData = new DataFormatData();
        dataFormatData.setIndex((short)49);
        contentWriteCellStyle.setDataFormatData(dataFormatData);
        contentWriteCellStyle.setHorizontalAlignment(HorizontalAlignment.CENTER);
        WriteCellData<?> cellData = context.getFirstCellData();
        WriteCellStyle.merge(contentWriteCellStyle, cellData.getOrCreateStyle
    }
}

```

```

import com.alibaba.excel.write.style.row.AbstractRowHeightStyleStrategy;
import org.apache.poi.ss.usermodel.Row;

/**
 *
 */
public class CellRowHeightStyleStrategy extends AbstractRowHeightStyleStrategy

    @Override
    protected void setHeadColumnHeight(Row row, int relativeRowIndex) {
        //17.7
        if(relativeRowIndex == 0){
            //excel1515*20=300
            row.setHeight((short) 3240);
        }
    }

    @Override
    protected void setContentColumnHeight(Row row, int relativeRowIndex)
    }
}

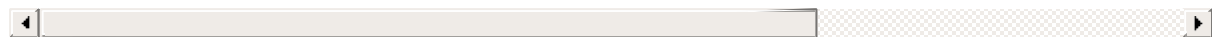
```

EasyExcelLongestMatchColumnWidthStyleStrategy()

```

EasyExcel.write(fileName, LongestMatchColumnWidthData.class)
    .registerWriteHandler(new LongestMatchColumnWidthStyleStrategy()).sheet

```

```

import com.alibaba.excel.enums.CellDataTypeEnum;
import com.alibaba.excel.metadata.Head;
import com.alibaba.excel.metadata.data.CellData;
import com.alibaba.excel.metadata.data.WriteCellData;
import com.alibaba.excel.write.metadata.holder.WriteSheetHolder;
import com.alibaba.excel.write.style.column.AbstractColumnWidthStyleStrategy;
import lombok.extern.slf4j.Slf4j;
import org.apache.commons.collections.CollectionUtils;
import org.apache.poi.ss.usermodel.Cell;

import java.util.HashMap;
import java.util.List;
import java.util.Map;

/**
 * @author yupf
 * @description
 * @date 2022/9/7 18:48
 */
@Slf4j
public class CellWidthStyleStrategy extends AbstractColumnWidthStyleStrategy {
    private Map<Integer, Map<Integer, Integer>> CACHE = new HashMap<>();

    @Override
    protected void setColumnWidth(WriteSheetHolder writeSheetHolder, List
        Map<Integer, Integer> maxColumnWidthMap = CACHE.get(writeSheetHolder
        if (maxColumnWidthMap == null) {
            maxColumnWidthMap = new HashMap<>();
            CACHE.put(writeSheetHolder.getSheetNo(), maxColumnWidthMap);
        }
        if (isHead) {
            if (relativeRowIndex.intValue() == 1) {
                Integer length = cell.getStringCellValue().getBytes().length;
                Integer maxColumnWidth = maxColumnWidthMap.get(cell.getColumnIndex);
                if (maxColumnWidth == null || length > maxColumnWidth) {
                    maxColumnWidthMap.put(cell.getColumnIndex(), length);
                    writeSheetHolder.getSheet().setColumnWidth(cell.getColumnIndex,
                }
            }
        } else {
            Integer columnWidth = this.dataLength(cellDataList, cell, isHead);
            if (columnWidth >= 0) {
                if (columnWidth > 255) {
                    columnWidth = 255;
                }
                Integer maxColumnWidth = maxColumnWidthMap.get(cell.getColumnIndex);
                if (maxColumnWidth == null || columnWidth > maxColumnWidth) {
                    maxColumnWidthMap.put(cell.getColumnIndex(), columnWidth);
                    writeSheetHolder.getSheet().setColumnWidth(cell.getColumnIndex,
                }
            }
        }
    }
}

```

```

        private Integer dataLength(List<WriteCellData<?>> cellDataList, Cell cell) {
            if (isHead) {
                return cell.getStringCellValue().getBytes().length;
            } else {
                CellData cellData = cellDataList.get(0);
                CellDataTypeEnum type = cellData.getType();
                if (type == null) {
                    return -1;
                } else {
                    switch (type) {
                        case STRING:
                            return cellData.getStringValue().getBytes().length;
                        case BOOLEAN:
                            return cellData.getBooleanValue().toString().getBytes().length;
                        case NUMBER:
                            return cellData.getNumberValue().toString().getBytes().length;
                        default:
                            return -1;
                    }
                }
            }
        }
    }
}

```

```

EasyExcel.write(response.getOutputStream())
    .head(head)
    .registerWriteHandler(new CellRowHeightStyleStrategy()) //
    .registerWriteHandler(new CellStyleStrategy(Arrays.asList(0,1),new WriteCellStyle()))
    .registerWriteHandler(new CellWidthStyleStrategy())
    .sheet(sheetName)
    .doWrite(list);

```

EasyExcel

EasyExcelapi

JavaEasyExcel,EasyExcel

:

```

JavaeasyExcelexcel
JavaEasyExcel
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JavaEasyExcel
JavaEasyExcel
Java easyExcel
JavaEasyExcelExcel
Java EasyExcelsheet
Java EasyExcel

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JavaExcel(EasyExcel)

EasyExcel