

Troubleshoot & Debugging Framework R3

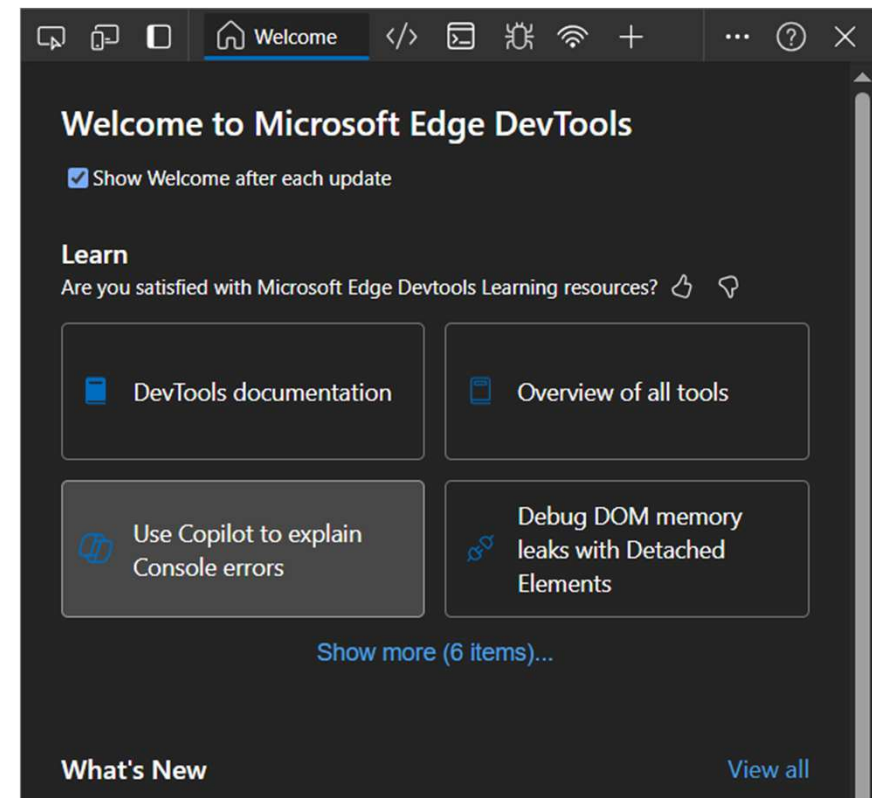
Pretest

Agenda

- Cara Troubleshoot & Debugging
- Best Practice Troubleshoot & Debugging
- List Issue Common
- Tips menjelaskan issue ke customer

Browser

- Debugging di browser menggunakan Developer Tools dengan memanfaatkan panel Console dan Network
- Debugging di browser berfungsi untuk mengidentifikasi issue yang ada di dalam komponen Front End



Panel Console

- Panel console berisikan log yang dikeluarkan dari suatu action dari halaman di Front End

```
✖ ▶ Mixed Content: The page at 'polyfills.e2f243f...js:1'
https://hodipo-webr3.ad-ins.com/FOUNDATION_FE_R3/Pages/Login' was
loaded over HTTPS, but requested an insecure XMLHttpRequest
endpoint '
http://hodipo-appr3.ad-ins.com/FOUNDATION_BE_R3/v1/GeneralSetting/GetG
'. This request has been blocked; the content must be served over
HTTPS.

{"Code":"IS_USE_NEW_ROLEPICK","RequestDateTime main.9b6125a...js:1
":"2024-05-14"}

✖ ▶ ERROR Error: Uncaught (in promise): e: main.9b6125a...js:1
{"headers":{"normalizedNames":{},"lazyUpdate":null,"headers":
{}}, "status":0, "statusText":"Unknown Error", "url":"
http://hodipo-appr3.ad-ins.com/FOUNDATION_BE_R3/v1/GeneralSetting/GetG
", "ok":false, "name":"HttpErrorResponse", "message":"Http failure
response for
http://hodipo-appr3.ad-ins.com/FOUNDATION_BE_R3/v1/GeneralSetting/GetG
: 0 Unknown Error", "error":{"isTrusted":true}}
at k (polyfills.e2f243f334...fed56ce9.js:1:13708)
at polyfills.e2f243f334...fed56ce9.js:1:12808
at i (95.7ab9a3b...js:1:912)
at t.invoke (polyfills.e2f243f...js:1:8070)
at Object.onInvoke (main.9b6125a...js:1:611612)
at t.invoke (polyfills.e2f243f...js:1:8010)
at e.run (polyfills.e2f243f...js:1:3243)
at polyfills.e2f243f334...fed56ce9.js:1:14509
at t.invokeTask (polyfills.e2f243f...js:1:8754)
at Object.onInvokeTask (main.9b6125a...js:1:611524)
```

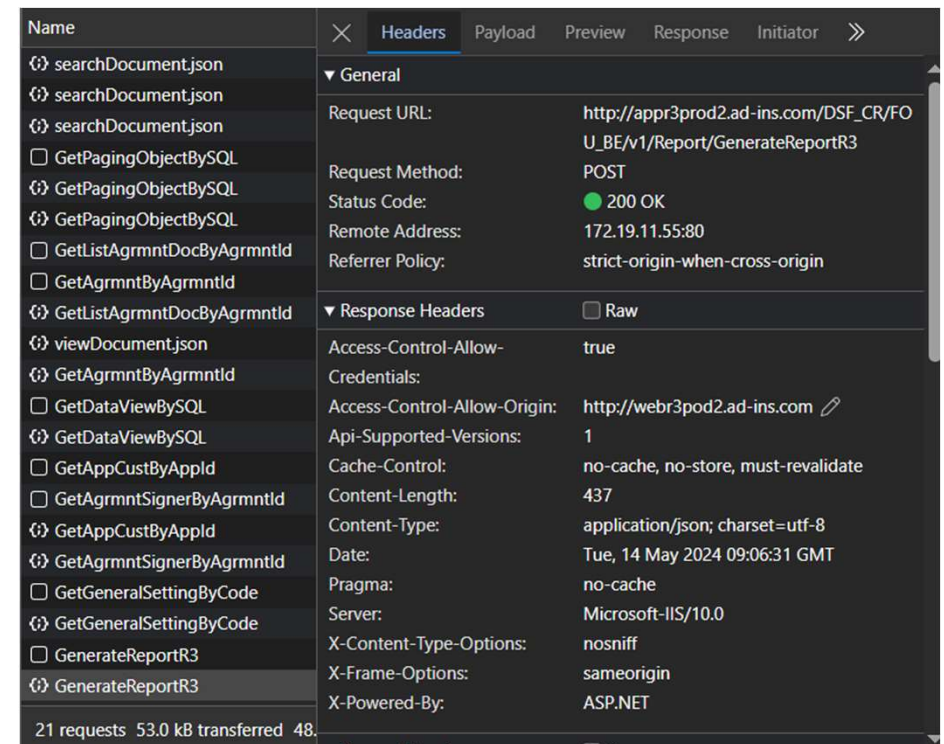
Panel Console

- Contoh coding untuk mengeluarkan log di console

```
this.http.post(this.UrlConstantNew.GetGeneralSettingByCode, { GsCod
  (response) => {
    this.MaxDaysThirdPartyChecking = response["GsValue"];
  }
}).catch(
  (error) => {
    console.log(error);
  }
);
await this.getRefMaster();
```

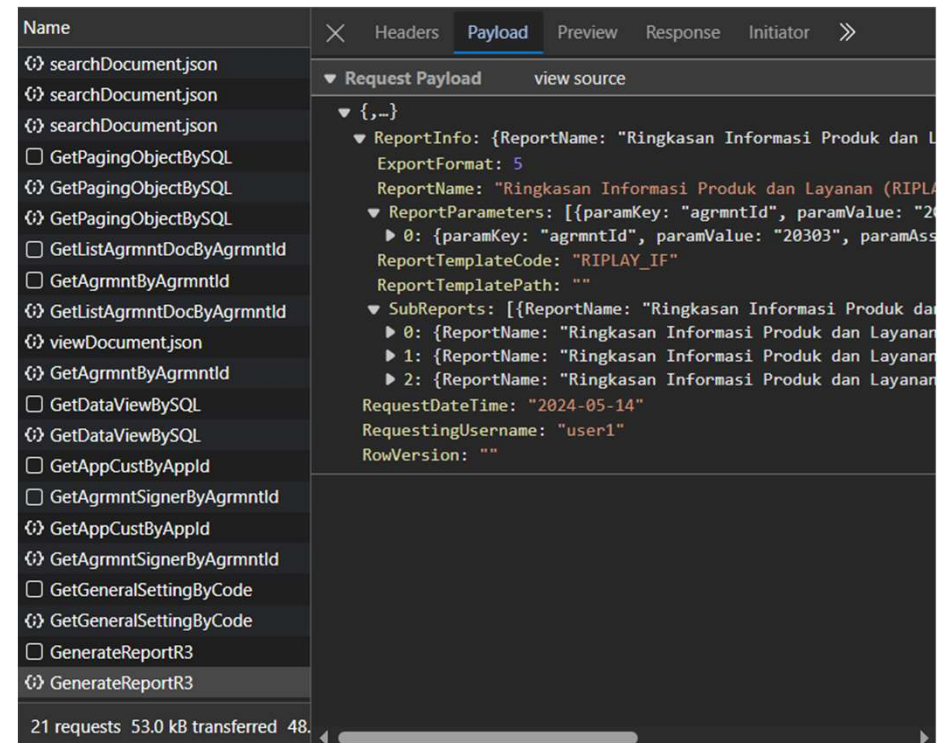
Panel Network

- Didalam panel network terdapat tab Headers yang menampilkan informasi Request Header dari API yang di hit



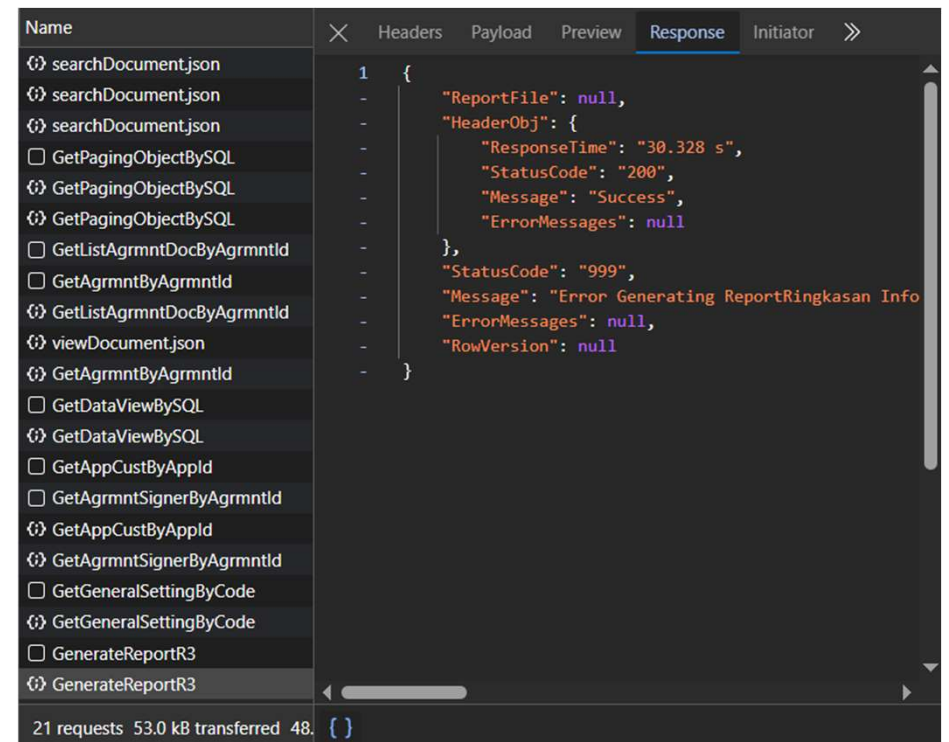
Panel Network

- Didalam panel network terdapat tab Payload yang menampilkan informasi Request Body dari API yang di hit



Panel Network

- Didalam panel network terdapat tab Response yang menampilkan informasi Response Body dari API yang di hit



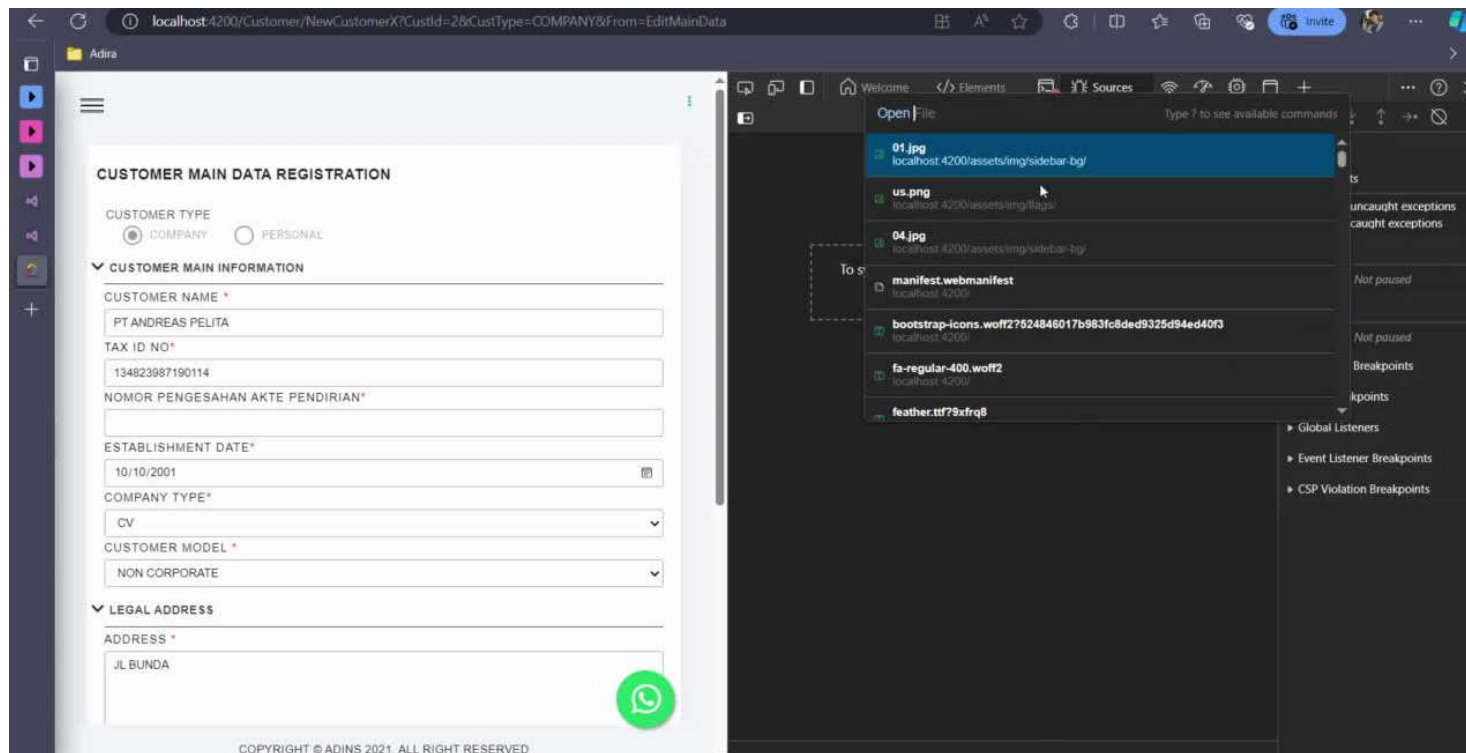
Debugging Front End

- Berfungsi untuk mengidentifikasi issue pada Front End
- Dilakukan dari dev tools browser tab source dan hanya bisa dilakukan lewat localhost
- Hal yang perlu disiapkan sebelum memulai debug
 - Solution berhasil dibuild terlebih dahulu dan berhasil dilakukan ng serve
 - config (environment.ts atau enviconfig.json) harus disesuaikan terlebih dahulu

Debugging Front End

- Cara menaruh breakpoint pada source code
 - Klik Open File lalu cari file .ts dari halaman yang ingin didebug
 - Taruh breakpoint pada line yang ingin dicek

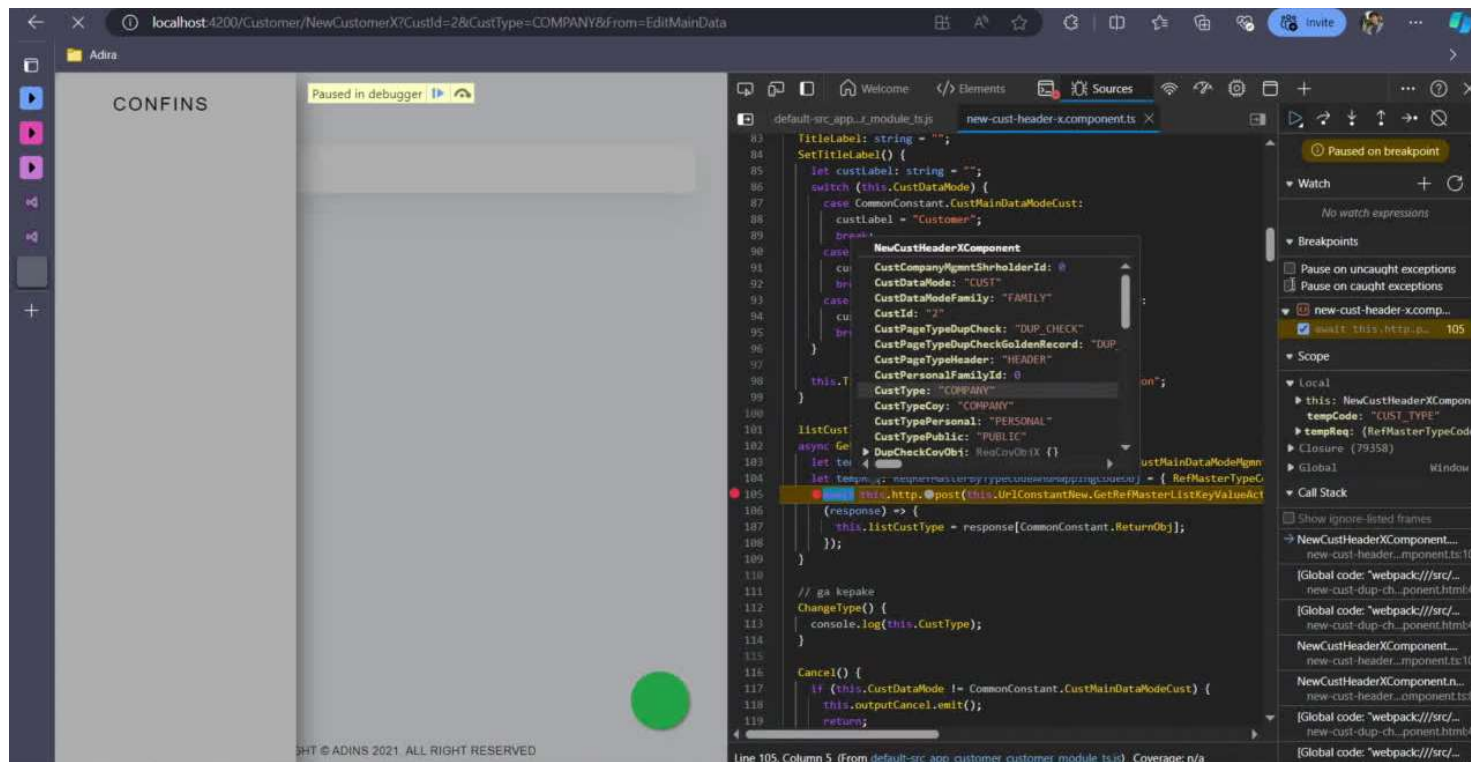
Debugging Front End



Debugging Front End

- Cara menggunakan watch
 - Pastikan kondisi sedang dalam keadaan break
 - Klik + pada subsection watch
 - Copy Paste code yang ingin di cek

Debugging Front End



Debugging Template Engine

- Open page that using uctemplate library.
- Open inspect element by right click or F12.
- Go to the Elements and click where it says 'adins-uctemplate'
- In the panels, look for the Console tab.
- Type 'ng.getComponent(\$0)', then Enter

Debugging Template Engine

Order View [Back](#)

Order Information			
Order No	Debtor Name	Order Date	Total Transaction
ORD250206002	Jane Smith	02-Jan-2024	1,800,000.00

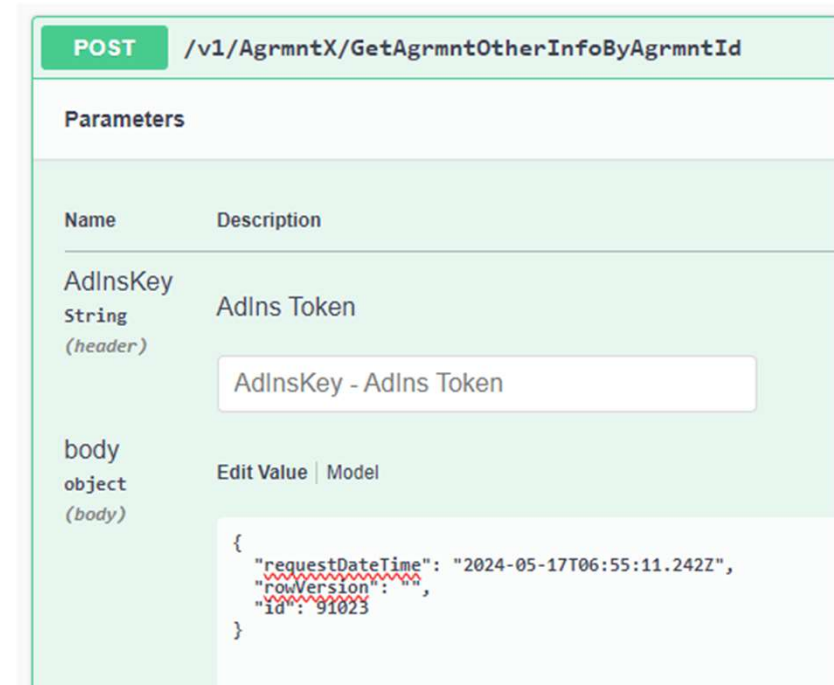
Product Information			
Total: 1 - 1 of 1 Result			
Product Name	Price	Quantity	Sub Total
MacBook Air	20,000,000.00	5	3,600,000.00

```
Elements Console Sources Network Performance Memory Application Privacy and security Lighthouse Recorder
<div_ngcontent-serverapp-c152 class="main-panel bg-primary-2 bg-lighten-5">
  <div_ngcontent-serverapp-c152 class="main-content">
    <div_ngcontent-serverapp-c152 class="content-wrapper bg-primary-2 bg-lighten-5">
      <div_ngcontent-serverapp-c152 class="container-fluid" style="padding-bottom: 40px;">
        <router-outlet_ngcontent-serverapp-c152></router-outlet>
      <!-- ng-template_ngghost-serverapp-c231 class="ng-star-inserted" == $0 -->
        <!--bindings=
          "ng-reflect-ng-if": "false"
        -->
```

```
Elements Console Sources Network Performance Memory Application Privacy and security Lighthouse Recorder
top Filter
Hide network
Preserve log
Selected context only
Group similar messages in console
Show CORS errors in console
Log XMLHttpRequests
Eager evaluation
Autocomplete from history
Treat code evaluation as user action
> ng.getComponent($0)
< UcTemplateComponent {fb: FormBuilder, router: Router, activeRoute: ActivatedRoute, http: HttpClient, cookiesService: CookiesService, ...}
  AddressService: FormAddressService {DictInputAddress: {}}
  AppStep: {}
  AppReady: false
  AppRfReady: false
  Form: FormGroup {_pendingDirty: false, _hasOwnPendingAsyncValidator: false, _pendingTouched: false, _parent: null, _onCollectionChange: f, ...}
  FormSettingsService: UcFormSettingsService {FormGroup: {...}, UcForm: {...}, DictVariableDatatype: {...}, updates: BehaviorSubject, isUpdate: Observable}
  IsAdd: true
  IsReady: false
  LocalStorage: LocalStorageService {Storage: {...}}
  LookupFAService: FormArrayLookupService {DictInputLookup: {...}, DictInputLookupArray: Array(0)}
  LookupService: FormLookupService {DictInputLookup: {...}}
```


Visual Studio

- Berfungsi untuk mengidentifikasi issue yang terdapat pada API Back End
- Cara mentrigger API
 - Swagger
 - Postman



POST /v1/AgrmntX/GetAgrmntOtherInfoByAgrmntId

Parameters

Name	Description
AdInsKey String (header)	AdIns Token

AdInsKey - AdIns Token

body
object
(body)

Edit Value | Model

```
{  "requestDateTime": "2024-05-17T06:55:11.242Z",  "rowVersion": "",  "id": 91023}
```

Visual Studio

Hal yang butuh dipersiapkan

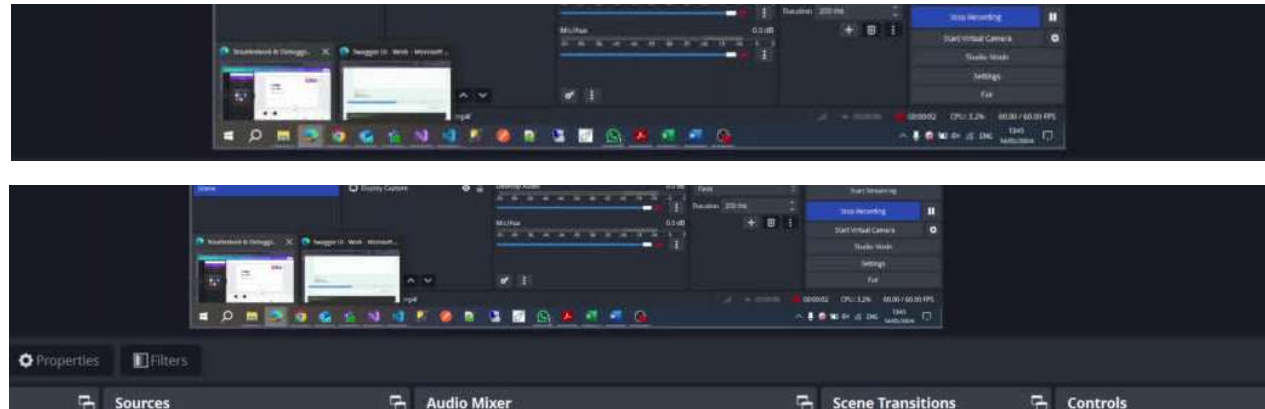
1. Solution berhasil dibuild terlebih dahulu
2. appsetting.json sudah disetting dengan benar sesuai dengan database yang dituju

```
"ConnectionStrings": {  
  "Logging": {  
    "DataBaseType": "SSMS",  
    "DataBaseSSMS": "Server=hodipo-dbr3.AD-INS.COM;Database=LOGGING_DEV;User ID=sa;Password=AdIns2021",  
    "DataBaseMySQL": "server=localhost;Database=logging;user id=user1;password=AdIns2017;SslMode=none",  
    "DataBasePostgreSQL": "User ID=sa;Password=AdIns2021;Host=hodipo-dbr3;Port=5432;Database=LOGGING;Pooling=true;",  
    "EnableLog": true,  
    "EnableModifyResponseTime": true  
  },  
  "Foundation": {  
    "DataBase": "Server=hodipo-dbr3.AD-INS.COM;Database=FOUNDATION_DEV;User ID=sa;Password=AdIns2021;Enlist=false;",  
    "SQLConnSP": "Data Source=hodipo-dbr3.AD-INS.COM;user id=sa;Password=AdIns2021;Initial Catalog=FOUNDATION_DEV;Enlist=false;",  
    "EnableMigration": false,  
    "URL": "http://hodipo-appr3.ad-ins.com/FOUNDATION_BE_R3/"  
  },  
  "LOS": {  
    "DataBase": "Server=Hodipo-dbr3.AD-INS.COM;Database=LOS_R3_DEV;User ID=sa;Password=AdIns2021;",  
    "SQLConnSP": "Data Source=hodipo-dbr3.AD-INS.COM;user id=sa;Password=AdIns2021;Initial Catalog=LOS_R3_DEV;Enlist=false;",  
    "SQLConnStaging": "Data Source=hodipo-dbr3.AD-INS.COM;user id=sa;Password=AdIns2021;Initial Catalog=STG_LOS;Enlist=false;",  
    "EnableMigration": false,  
    "URL": "http://hodipo-appr3.ad-ins.com/LOS_BE_R3/"  
  },  
  "Tax": {  
    "DataBase": "Server=Hodipo-dbr3.AD-INS.COM;Database=TAX_DEV;User ID=sa;Password=AdIns2021",  
    "SQLConnSP": "Data Source=Hodipo-dbr3.AD-INS.COM;user id=sa;Password=AdIns2021;Initial Catalog=TAX_DEV;",  
    "EnableMigration": false,  
    "URL": "http://hodipo-appr3.ad-ins.com/TAX_BE_R3/"  
  },  
}
```

Visual Studio

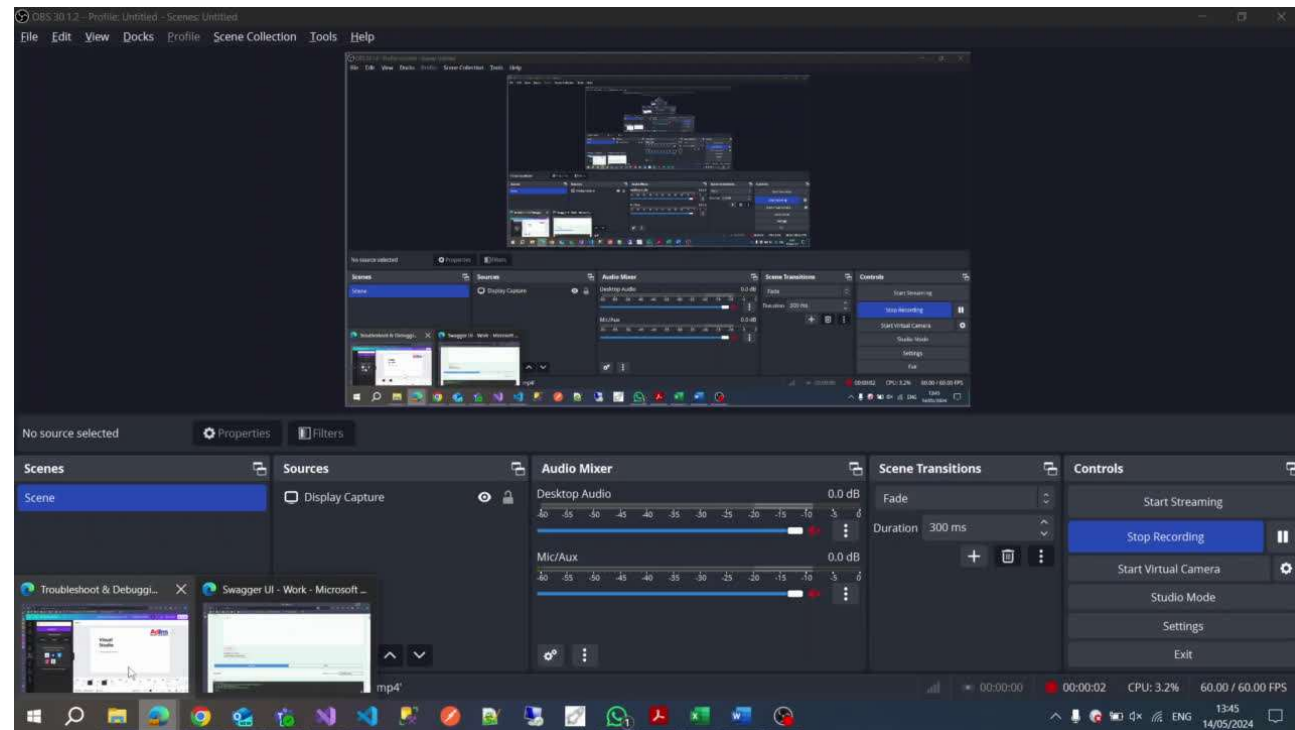
Cara menggunakan breakpoint

- Step Over (**F10**) untuk lanjut ke baris selanjutnya
- Step Into (**F11**) untuk masuk ke dalam function



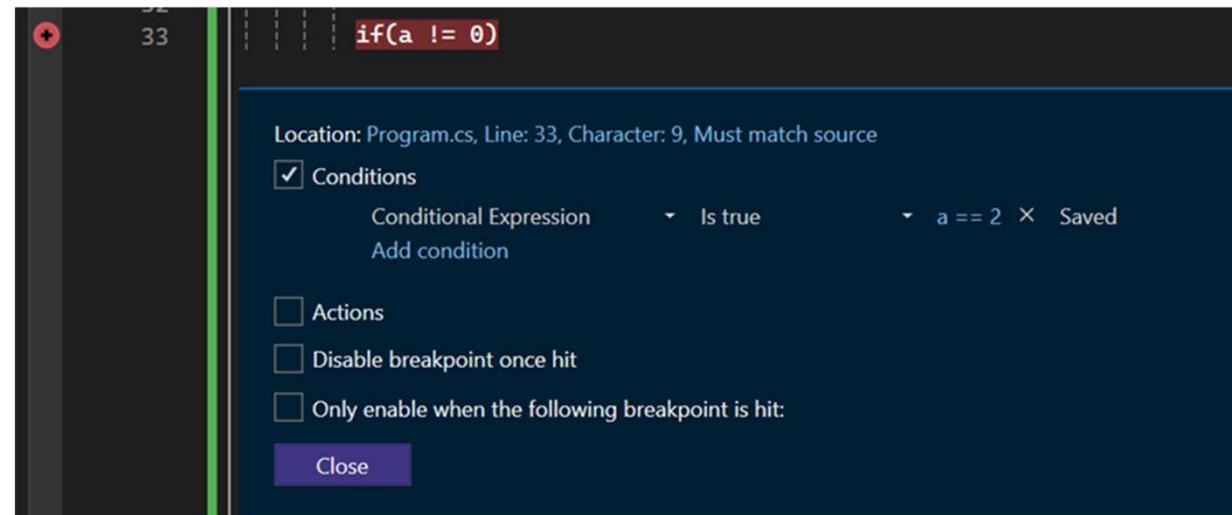
Visual Studio

- Continue (F5) untuk melanjutkan proses sampai selesai atau breakpoint selanjutnya



Conditional Breakpoint

- Breakpoint dapat ditambahkan kondisi tertentu agar terjadi break pada titik yang ditaruh breakpoint
- Jenis kondisi yang bisa dipilih
 - **Is True** : breakpoint akan break ketika kondisi spesifik terpenuhi
 - **When Change** : breakpoint akan break jika ada perubahan value



Watch

- Watch berfungsi untuk melakukan modifikasi code tanpa mengubah code asli
- Watch baru bisa digunakan pada saat debug sedang berlangsung

```
if (agrmntOtherInfo != null)
{
    res.AgrmntOtherInfoId = agrmntOtherInfo.AgrmntOtherInfoId;
    res.AgrmntId = agrmntOtherInfo.AgrmntId;
    res.BankCode = agrmntOtherInfo.BankCode;
    res.BankBranch = agrmntOtherInfo.BankBranch;
    res.BankAccNo = agrmntOtherInfo.BankAccNo;
    res.BankAccName = agrmntOtherInfo.BankAccName;
    res.AdditionalInterestPaidBy = agrmntOtherInfo.AdditionalInterestPaidBy;
    res.SbApdueaftrglv = agrmntOtherInfo.SbApdueaftrglv;
    res.SbBpkbaging = agrmntOtherInfo.SbBpkbaging;
    res.ProdHoCode = agrmntOtherInfo.ProdHoCode;

    object RefMasterObj = new { Code = RefMasterCommonConstantX.REF_MASTER_TYPE_CODE_ADDITIONAL_INTEREST_PAID_BY };
    ResListRefMasterObj refMasterList = await HttpHelper.PostRequest<ResListRefMasterObj>(url, LosUrlConstant.GET_LIST_ACT
    RefMasterObj refMasterObj = refMasterList.RefMasterObjs.FirstOrDefault(w => w.MasterCode == agrmntOtherInfo.Additional
    res.AdditionalInterestPaidByName = refMasterObj != null ? refMasterObj.Descr : "";
}
```

Watch 1

Name	Value	Type
Convert.ToInt32(agrmntOtherInfo.BankAccNo)	11223344	int
Convert.ToInt32(agrmntOtherInfo.BankBranch)	'Convert.ToInt32(agrmntOtherInfo.BankBranch)' threw an exception of t...	int (S...
Add item to watch		

Autos Locals Watch 1

DB Logging

- DB Logging adalah database yang menyimpan history log Request dan Response dari API
- DB Logging menyimpan semua Request dan Response dari semua subsystem R3
- Kegunaan DB Logging
 - Melihat history Request dan Response API
 - Melihat detail setiap Request dan Response API

DB Logging

Query mendapatkan log:

```
SELECT h.log_id, h.date, h.action, h.uri, h.http_status_code, d.payload, d.ex_message,  
d.ex_inner_message, d.stacktrace  
FROM sys_act_log_h h  
JOIN sys_act_log_d d on h.log_id = d.log_id and h.action = d.action  
ORDER BY h.date desc  
LIMIT 100
```

	log_id character varying (50)	date timestamp with time zone	action character varying (50)	uri character varying (255)	http_status_code integer	payload text	ex_message character varying (4000)	ex_inner_message character varying (4000)	stacktrace text
1	d2dafc9f-1944-41f8-98...	2023-11-2...	Response	http://admf-sit...	500	{"HeaderObj":{"Respo...	Value cannot be null...	System.ArgumentNullExceptio...	at System.Linq.ThrowHelper.Th...
2	d2dafc9f-1944-41f8-98...	2023-11-2...	Request	http://admf-sit...	200	{"Appld":"212","AppAs...			

DB Logging (Request)

- log dengan Action 'Request' adalah log Request yang dikirimkan ke API
- informasi yang sering digunakan adalah 'Payload'
- payload dapat digunakan sebagai body request jika ingin melakukan testing ulang api lewat swagger/postman
- contoh payload:
 - {"AppId":"212","AppAssetId":759,"AppCollateralId":766,"RequestDateTime":"2023-11-27"}

DB Logging (Response)

- log dengan Action 'Response' adalah log Response yang dikeluarkan dari API
- informasi yang sering digunakan adalah 'Payload', 'ex_message', 'ex_inner_message', dan 'stacktrace'
- payload dapat digunakan untuk melihat body response yang dikeluarkan dari API
- ex_message, ex_inner_message, stacktract digunakan untuk melihat error message yang terjadi di API

DB Logging (Response)

- contoh ex_message
 - Value cannot be null. (Parameter 'source')
- contoh ex_inner_message
 - System.ArgumentNullException Value cannot be null. (Parameter 'source') Void
ThrowArgumentNullException(System.Linq.ExceptionArgument)

DB Logging (Response)

- contoh stacktrace

```
at System.Linq.ThrowHelper.ThrowArgumentNullException(ExceptionArgument argument)
at System.Linq.Enumerable.Count[TSource](IEnumerable`1 source)
at AdIns.LOS.BusinessService.X.AppInsServiceX.GetAppInsAddCvgXForInsuranceData(ResultInsuranceDataObj
resultInsuranceDataObj) in
C:\Jenkins\jenkins\workspace\R3\ADIRA_Alibaba_SIT\LOS_R3_BACKEND\AdIns.LOS.BusinessService.X\AppInsServiceX.cs:li
ne 114
at AdIns.LOS.API.X.Controllers.LOS.X.AppInsXController.GetInsDataByAppAssetId(ReqGetInsDataByAppAssetIdObj
reqGetInsDataByAppAssetId) in
C:\Jenkins\jenkins\workspace\R3\ADIRA_Alibaba_SIT\LOS_R3_BACKEND\AdIns.LOS.API.X\Controllers\LOS.X\AppInsXContr
oller.cs:line 92
```

Cara mendapatkan log

1. Informasi Error ID pada error message yang dikirimkan dari API dapat dipakai untuk mencari log di DB Logging karena Error ID = log_id

```
{
  "HeaderObj": {
    "ResponseTime": "54.388 s",
    "StatusCode": "500",
    "Message": "Exception has been occurred, Message : The request was canceled due to the configured HttpClient.Timeout of 100 seconds elapsing., Error ID : 27962ada-8800-4ffa-9f8b-1e924316a347",
    "ErrorMessages": null
  },
  "StatusCode": "500",
  "Message": "Exception has been occurred, Message : The request was canceled due to the configured HttpClient.Timeout of 100 seconds elapsing., Error ID : 27962ada-8800-4ffa-9f8b-1e924316a347",
  "ErrorMessages": null,
  "RowVersion": null
}
```

Cara mendapatkan log

2. Mencari log di DB Logging bisa dengan cara filtering informasi Date yang ada di SYS_ACT_LOG_H sesuai dengan tanggal kejadian issue

```
select *  
from sys_act_log_h  
where date between '2024-07-05 15:00:00.000' and '2024-07-05 15:22:45.259'  
order by date desc  
limit 100
```

Cara mendapatkan log

3. Mencari log di DB Logging bisa dengan cara filtering informasi URI yang ada di SYS_ACT_LOG_H sesuai dengan API yang dilaporkan ada issue (kondisi string di postgres case sensitive)

```
select *  
from sys_act_log_h  
where uri like '%Aman%'  
order by date desc  
limit 100
```

DB Logging vs Panel Network

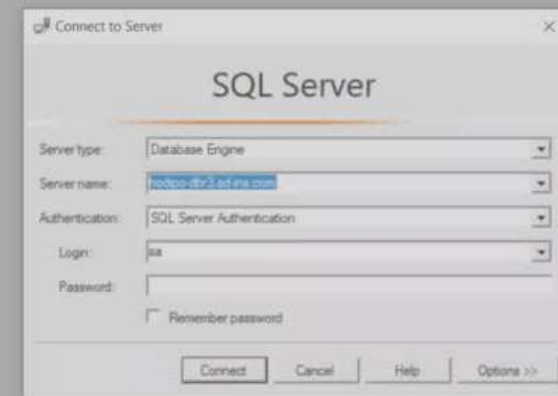
- DB Logging
 - Tidak memiliki informasi header
 - Bersifat historical sehingga bisa didapatkan kapan saja
 - Memiliki informasi stack trace
- Panel Network
 - Memiliki informasi header
 - Hanya bisa didapatkan pada saat melakukan action di menu
 - Tidak memiliki informasi stack trace

Profiler

- Profiler digunakan untuk mengetahui proses-proses yang terjadi pada database (Select, Insert, Update, Delete, Exec)
- Cara membuka Profiler
 - SSMS > Tools > SQL Server Profiler

Profiler

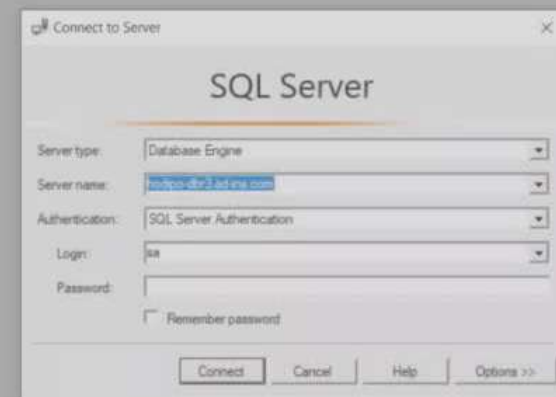
1. Login ke server database sesuai dengan database yang digunakan pada aplikasi



Profiler

2. Pada tab Event Selection memilih Event berikut

1. RPC:Complete
2. SQL:BatchCompleted
3. SQL:BatchStarting

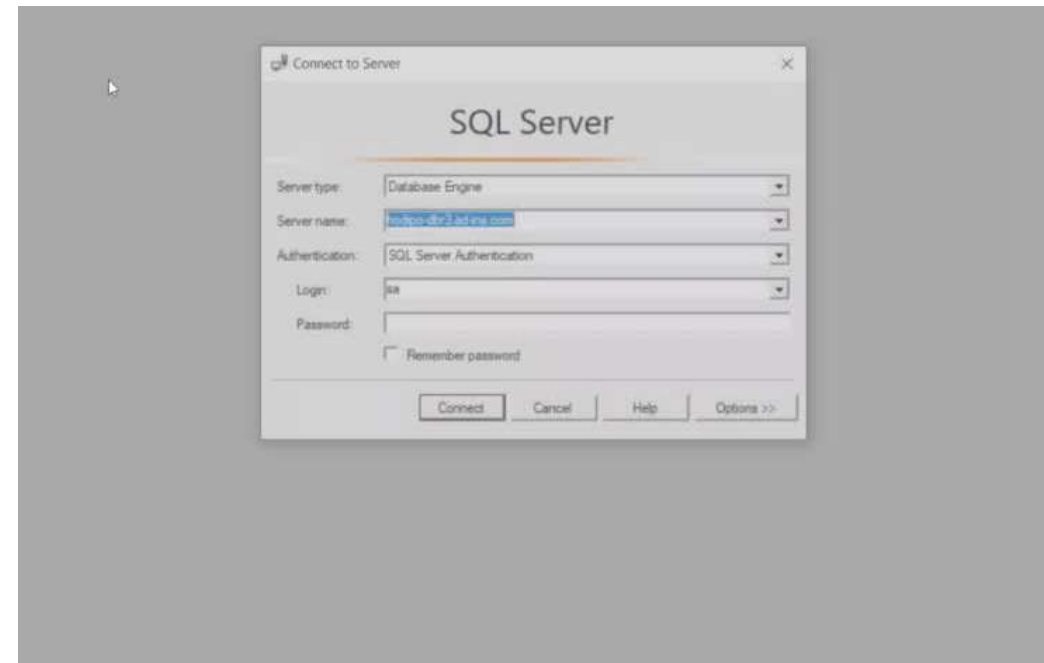


Profiler

3. Klik “Show all columns” dan memilih kolom yang akan ditampilkan pada traces (dipilih sesuai kebutuhan)

Rekomendasi yang biasa digunakan

1. TextData
2. DatabaseName
3. HostName



Profiler

4. Melakukan filter terhadap traces yang muncul (filter sesuai kebutuhan)

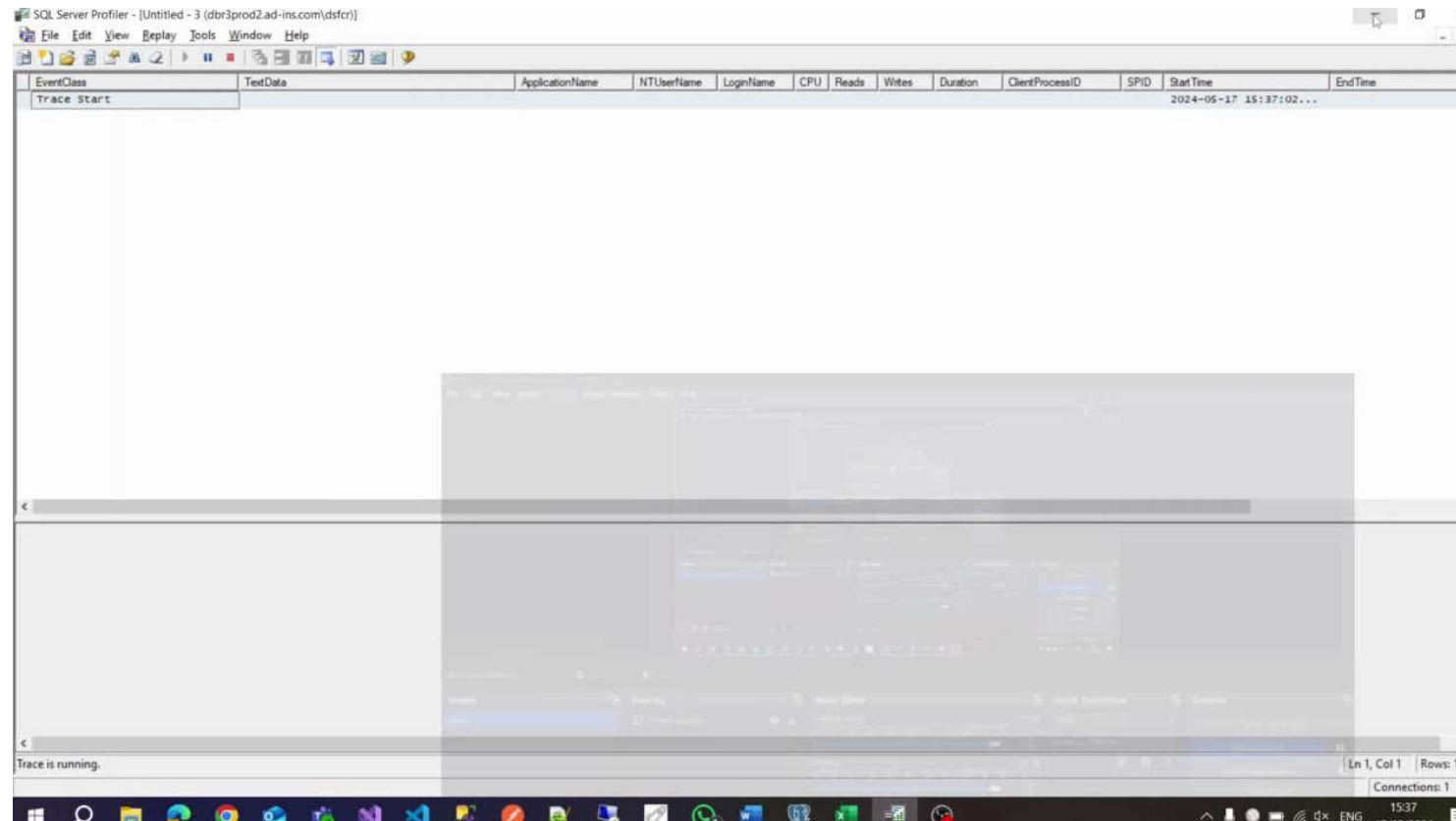
Rekomendasi yang biasa difilter

1. DatabaseName
2. TextData
3. HostName



Profiler

Hasil Traces Profiler



Profiler

Contoh query yang didapatkan dari profiler

```
declare @p8 int
set @p8=84
exec dbo.spQueryPaging_Generic @PageNo=N'1',@RowPerPage=N'10',@SelectCond=N'SELECT ROW_NUMBER()OVER(ORDER BY
AG.AGRMNT_NO ASC) AS Rn, AG.AGRMNT_NO AS AgrmntNo, AG.CUST_NAME AS CustName, AIO.INSOCO_BRANCH_NAME AS
InsoBranchName, AIO.INSOCO_BRANCH_CODE AS InsoBranchCode, AG.NUM_OF_ASSET AS NumOfAsset, AG.CUST_NO AS CustNo,
AG.BIZ_TEMPLATE_CODE AS BizTemplateCode,AG.AGRMNT_CURR_STEP, AIO.AGRMNT_ID AS AgrmntId',@FromCond=N'FROM
dbo.AGRMNT AG WITH(NOLOCK) JOIN dbo.DELIVERY_ORDER_H DOH WITH(NOLOCK) ON DOH.AGRMNT_ID = AG.AGRMNT_ID JOIN
dbo.DELIVERY_ORDER_D DOD WITH(NOLOCK) ON DOD.DELIVERY_ORDER_H_ID = DOH.DELIVERY_ORDER_H_ID JOIN dbo.APP_INS_OBJ
AIO WITH(NOLOCK) ON AIO.APP_ASSET_ID = DOD.APP_ASSET_ID',@WhereCond=N'WHERE AG.AGRMNT_CURR_STEP IN
(''CNFR'', ''EDGLVA'', ''GLVA'', ''PGLV'', ''PGLVA'', ''LIV'') AND AIO.INS_ASSET_COVERED_BY NOT IN(''OFF'', ''CU'')
AND ( AIO.INSOCO_BRANCH_CODE IN(N''testassetinsco'',N''GARDAOTOINSURANCE'',N''ASSET
INSURANCE'',N''GARDAOTOINSURANCE'',N'',N''CARINS'',N''ASSET INSURANCE'',N''T04-2-1'',N''PR_INS_BONJER'') AND
AG.BIZ_TEMPLATE_CODE = N''CF4W'') ',@OrderBy=N'AG.AGRMNT_NO ASC',@GroupByCond=N'GROUP BY AG.AGRMNT_NO,
AG.CUST_NAME, AIO.INSOCO_BRANCH_NAME, AIO.INSOCO_BRANCH_CODE, AG.NUM_OF_ASSET, AG.CUST_NO, AG.BIZ_TEMPLATE_CODE,
AG.AGRMNT_CURR_STEP, AIO.AGRMNT_ID',@TotalRecords=@p8 output
select @p8
```

Database

Debugging di database dapat menggunakan syntax PRINT dan SELECT

- hasil PRINT akan muncul pada tab Message
- hasil select akan muncul pada tab Results

Syntax select

SQLQuery2.sql - R3...OS_R3_QA (sa (87))* SQLQuery1.sql - R3...OS_R3_QA (sa (94))*

```

',@OrderBy=N'AG.AGRMNT_NO ASC',@GroupByCond=N'GROUP BY AG.AGRMNT_NO, AG.CUST_NAME,
AIO.INSKO_BRANCH_NAME, AIO.INSKO_BRANCH_CODE, AG.NUM_OF_ASSET, AG.CUST_NO,
AG.BIZ_TEMPLATE_CODE, AG.AGRMNT_CURR_STEP, AIO.AGRMNT_ID' @TotalRecords=@p8 output
select @p8
print @p8

```

100 %

Results Messages

Rn	AgmntNo	CustName	InskoBranchName	InskoBranchCode	NumOfAsset	CustNo	B
1	0002270/2/01/09/2002	Endah Ayu (Personal Married)	Garda Oto Insurance	GARDAOTOINSURANCE	2	000205QA20210601150	C
2	0002AGR20201000588	Xania Yoan Apsari	Garda Oto Insurance	GARDAOTOINSURANCE	1	0002CUST20200800260	C
3	0002AGR20201001112	Darren	Garda Oto Insurance	GARDAOTOINSURANCE	1	HOCUST20201001031	C
4	0002AGR20201001113	Xania Yoan Apsari	Garda Oto Insurance	GARDAOTOINSURANCE	1	0002CUST20200800260	C
5	0002AGR20201101122	Freddy Jingga	Garda Oto Insurance	GARDAOTOINSURANCE	1	NULL	C
6	0002AGR20201220092	Marvin Sutanto	Garda Oto Insurance	GARDAOTOINSURANCE	1	0002CUST20201120158	C
7	0002AGR20210201196	Xania Yoan Apsari	Garda Oto Insurance	GARDAOTOINSURANCE	1	0002CUST20200800260	C
8	0002AGR20210601194	Xania Yoan Apsari	Garda Oto Insurance	GARDAOTOINSURANCE	1	0002CUST20200800260	C
9	0002AGR20210602114	Ardi Gunawan	Garda Oto Insurance	GARDAOTOINSURANCE	1	0002CUST20200600102	C

(No column name)

1 47

Query executed successfully. | hodipo-dbr3.ad-ins.com (15... | sa (87) | LOS_R3_QA | 00:00:00 | 11 rows

Syntax print

The screenshot shows a SQL query editor with two tabs: 'SQLQuery2.sql' and 'SQLQuery1.sql'. The active tab is 'SQLQuery1.sql', which contains a SQL query. The query is a SELECT statement with a complex WHERE clause and a GROUP BY clause. The query is as follows:

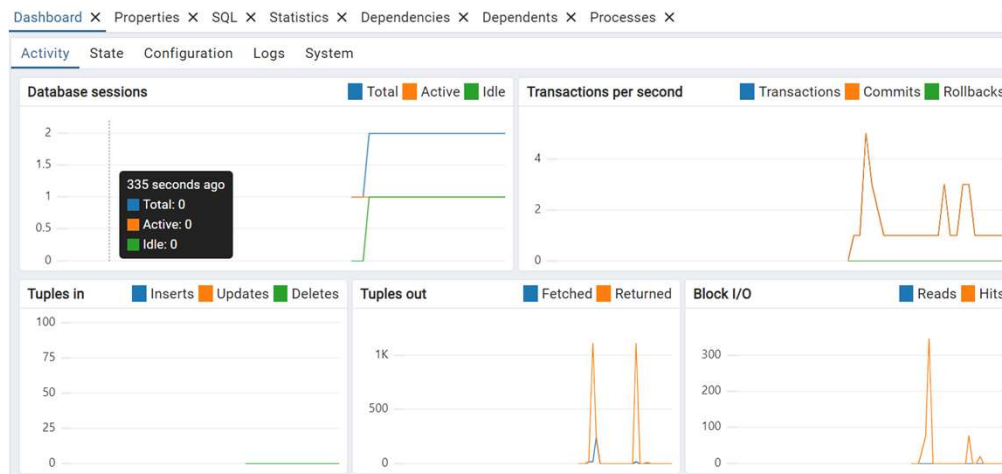
```
select @p8  
print @p8
```

The query is executed, and the results are displayed in the 'Results' pane. The results show '(1 row affected)' and the value '47'. The status bar at the bottom indicates 'Query executed successfully.' and provides additional information: 'hodipo-dbr3.ad-ins.com (15.... | sa (87) | LOS_R3_QA | 00:00:00 | 11 rows'.

```
SQLQuery2.sql - R3...OS_R3_QA (sa (87))* SQLQuery1.sql - R3...OS_R3_QA (sa (94))*  
' ,@OrderBy=N'AG.AGRMNT_NO ASC',@GroupByCond=N'GROUP BY AG.AGRMNT_NO, AG.CUST_NAME,  
AIO.INSOCO_BRANCH_NAME, AIO.INSOCO_BRANCH_CODE, AG.NUM_OF_ASSET, AG.CUST_NO,  
AG.BIZ_TEMPLATE_CODE, AG.AGRMNT_CURR_STEP, AIO.AGRMNT_ID',@TotalRecords=@p8 output  
  
select @p8  
print @p8  
  
100 %  
Results Messages  
(1 row affected)  
47  
  
100 %  
Query executed successfully. | hodipo-dbr3.ad-ins.com (15.... | sa (87) | LOS_R3_QA | 00:00:00 | 11 rows
```

Profiler alternative for Postgree

- Dashboard



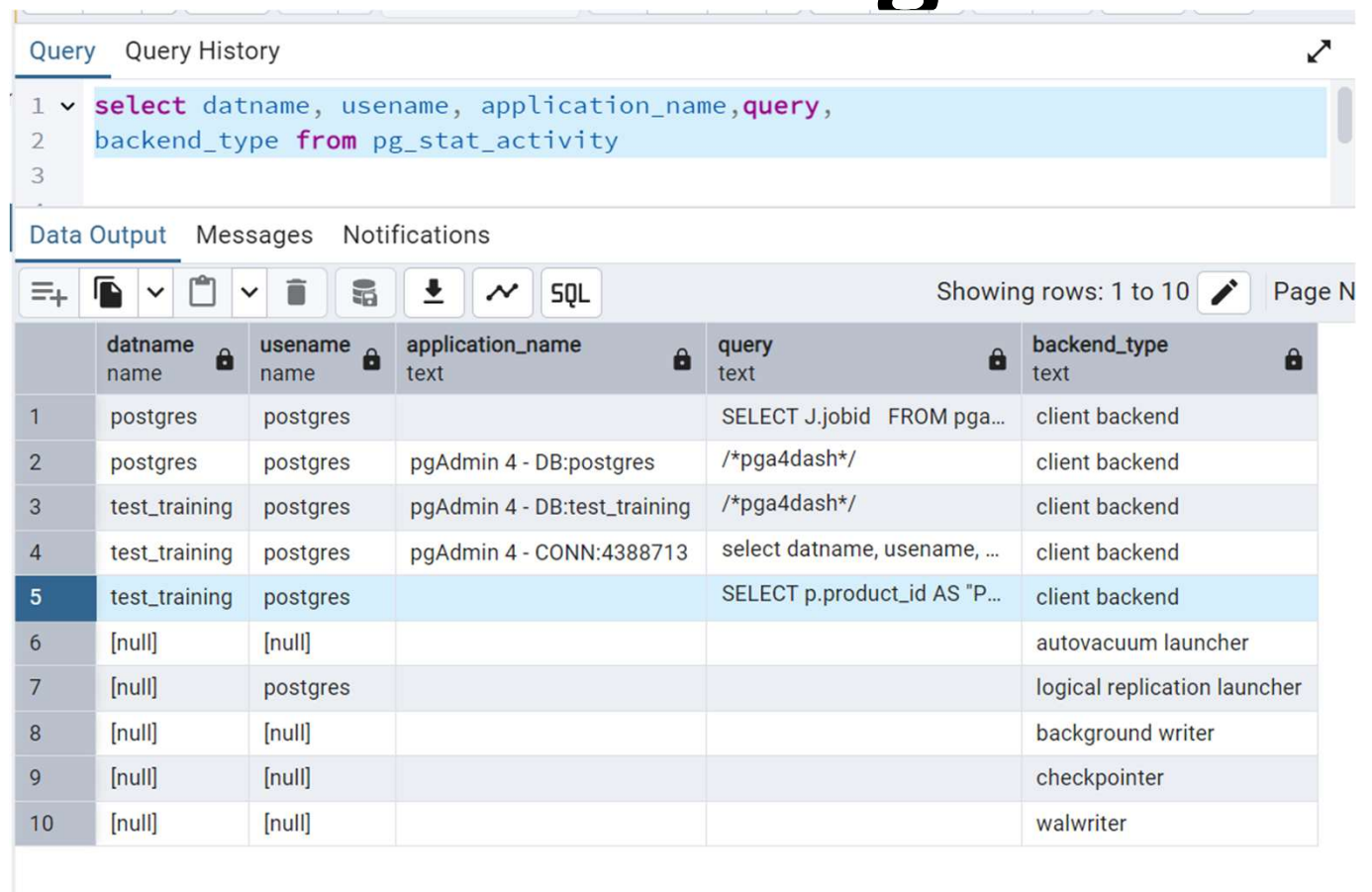
Log Format: ☒ Text ☐ JSON ☐ CSV

Tabular format? ☐

```
1 2025-04-02 09:13:03.225 +07 [2628] ERROR: column "test_training" does not exist at character 47
2 2025-04-02 09:13:03.225 +07 [2628] STATEMENT: select * from pg_stat_activity
3   where datname ="test_training"
4 2025-04-02 09:30:00.754 +07 [17156] LOG: could not receive data from client: An existing connection was f
5
6
7 2025-04-02 09:42:39.208 +07 [18976] FATAL: terminating connection due to administrator command
8 2025-04-02 09:42:39.208 +07 [18976] STATEMENT: SELECT pg_catalog.pg_terminate_backend(18976);
9 2025-04-02 09:42:39.427 +07 [15676] WARNING: PID 18976 is not a PostgreSQL backend process
10
```

Profiler alternative for Postgree

- pg_stat_activity



The screenshot shows a database query tool interface. The 'Query' tab is active, displaying a SQL query: `select datname, username, application_name, query, backend_type from pg_stat_activity`. Below the query editor, the 'Data Output' tab shows the results of the query. The results are displayed in a table with 5 columns: `datname`, `username`, `application_name`, `query`, and `backend_type`. The table shows 10 rows of data, including active database connections and system processes.

	datname name	username name	application_name text	query text	backend_type text
1	postgres	postgres		SELECT J.jobid FROM pga...	client backend
2	postgres	postgres	pgAdmin 4 - DB:postgres	/*pga4dash*/	client backend
3	test_training	postgres	pgAdmin 4 - DB:test_training	/*pga4dash*/	client backend
4	test_training	postgres	pgAdmin 4 - CONN:4388713	select datname, username, ...	client backend
5	test_training	postgres		SELECT p.product_id AS "P...	client backend
6	[null]	[null]			autovacuum launcher
7	[null]	postgres			logical replication launcher
8	[null]	[null]			background writer
9	[null]	[null]			checkpointer
10	[null]	[null]			walwriter

Profiler alternative for Postgree

- To get query cost analysis
- <https://www.postgresql.org/docs/9.2/using-explain.html>

Query	Query History
1	EXPLAIN SELECT p.product_id AS "ProductId",
2	p.product_code AS "ProductCode",
3	p.product_name AS "ProductName", p.price AS "Price",
4	p.stock AS "Stock", p.category_id AS "CategoryId",
5	c.category_name AS "CategoryName", c.is_parent AS "IsParent",
6	c.parent_id AS "ParentId"
7	FROM product AS p
8	INNER JOIN category AS c ON p.category_id = c.category_id
9	

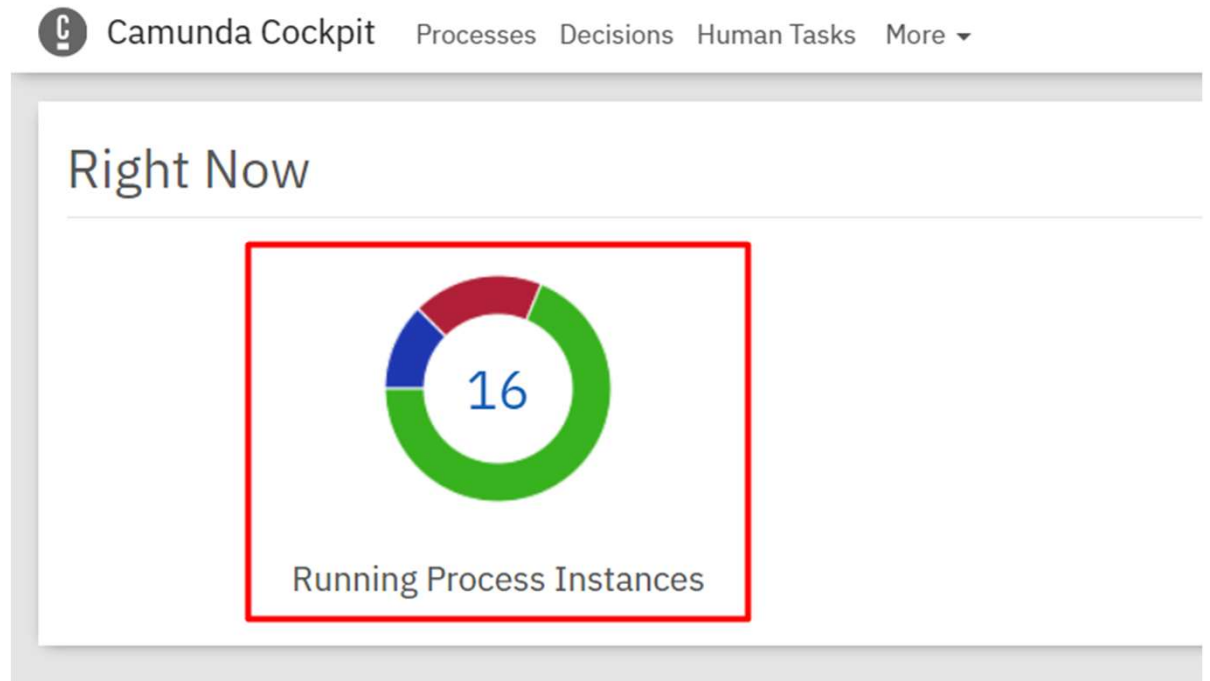
	QUERY PLAN	
	text	
1	Hash Join (cost=11.57..22.47 rows=70 width=555)	
2	Hash Cond: (p.category_id = c.category_id)	
3	-> Seq Scan on product p (cost=0.00..10.70 rows=70 width=3...	
4	-> Hash (cost=10.70..10.70 rows=70 width=235)	
5	-> Seq Scan on category c (cost=0.00..10.70 rows=70 wid...	

Query	Query History
1	EXPLAIN ANALYSE SELECT p.product_id AS "ProductId",
2	p.product_code AS "ProductCode",
3	p.product_name AS "ProductName", p.price AS "Price",
4	p.stock AS "Stock", p.category_id AS "CategoryId",
5	c.category_name AS "CategoryName", c.is_parent AS "IsParent",
6	c.parent_id AS "ParentId"
7	FROM product AS p
8	INNER JOIN category AS c ON p.category_id = c.category_id
9	

	QUERY PLAN	
	text	
1	Hash Join (cost=11.57..22.47 rows=70 width=555) (actual time=0.074..0.077 rows=6 loops=1)	
2	Hash Cond: (p.category_id = c.category_id)	
3	-> Seq Scan on product p (cost=0.00..10.70 rows=70 width=328) (actual time=0.040..0.041 rows=6 loops=1)	
4	-> Hash (cost=10.70..10.70 rows=70 width=235) (actual time=0.020..0.020 rows=5 loops=1)	
5	Buckets: 1024 Batches: 1 Memory Usage: 9kB	
6	-> Seq Scan on category c (cost=0.00..10.70 rows=70 width=235) (actual time=0.013..0.014 rows=5 loops=1)	
7	Planning Time: 0.240 ms	
8	Execution Time: 0.134 ms	

Camunda

Buka process pada web camunda



Camunda

Buka process yang terindikasi terdapat error

✓	0	0	Workflow Upload Asset Master
✓	0	0	Workflow Upload Cessie
✓	0	0	Workflow Upload Cust Doc File to DMS
✗	3	3	Workflow Upload File Consent Trusting Social
✓	0	0	Workflow Upload Lead
✓	0	0	Workflow Upload Negative Asset

Camunda

Buka Instances yang error

Process Instances		Incidents	Called Process Definitions	Job Definitions
Add criteria				
State	ID			
✖	82fa7e6c-10c9-11ef-a6fb-0242ac110009			
✖	c5d35189-0b7e-11ef-a6fb-0242ac110009			
✖	fdd1ec07-0919-11ef-a6fb-0242ac110009			

Camunda

Pada instances yang error buka tab incidents

Variables	Incidents	Called Process Instances	User Tasks	Jobs	Audit Log	External Tasks
Add criteria						
Name ^	Type -	Value				
AdInsKey	String	SzBYRG5SRlpKdGN3K3RXLOIB...				
FileName	String	CONSENT_18042023_628888...				
OfficeCode	String	0002				
RoleCode	String	MKT - MS				

Camunda

Didalam tab incidents buka message untuk melihat keseluruhan error

Variables	Incidents	Called Process Instances	User Tasks	Jobs	Audit Log	External Tasks
Message	Timestamp	Activity	Falling Activity			
SPIN/JACKSON-JSON-0100...	2024-05-13T15:26:05	Upload File Consent Trusting Social	Upload File Consent Trusting Social			

Camunda

berikut contoh error yang tercatat di camunda


error di camunda bisa berasal dari

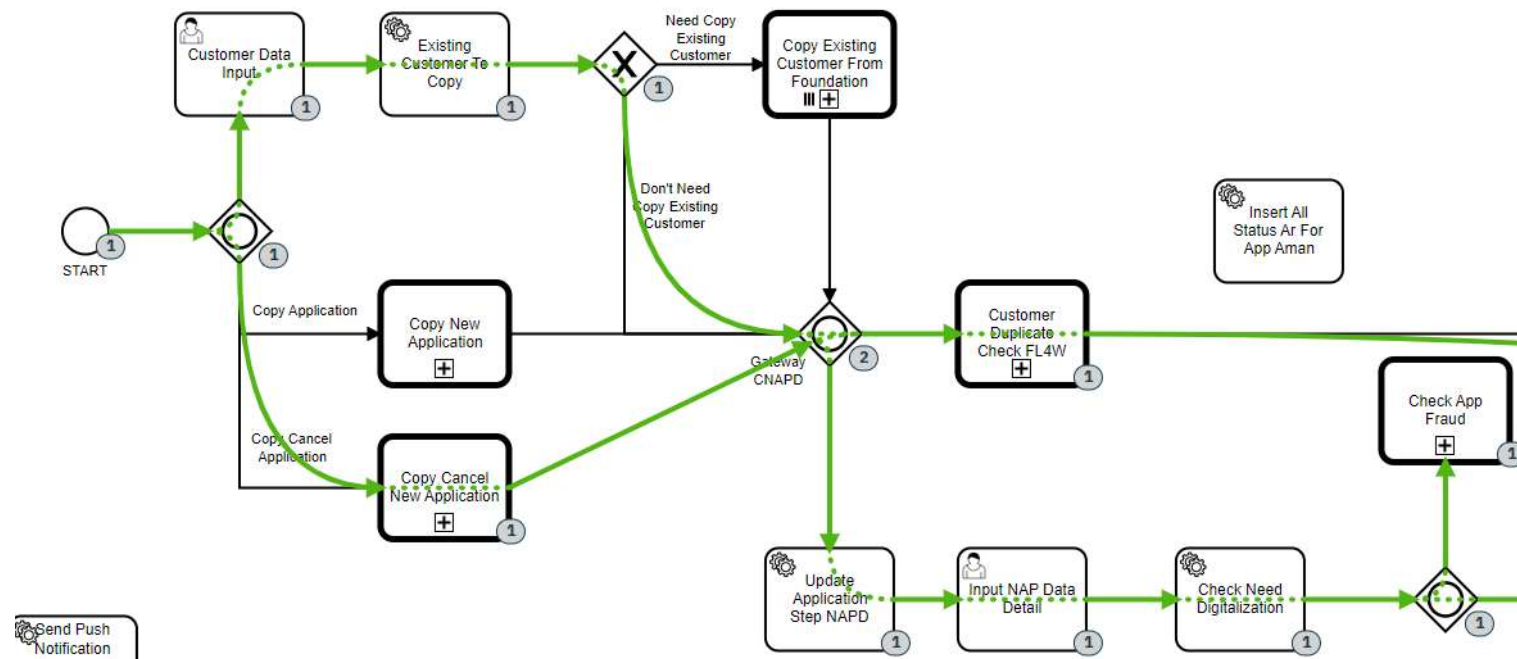
- api yang di hit oleh camunda
- proses yang terjadi di camunda

```
org.camunda.spin.json.JsonJsonDataFormatException: SPIN/JACKSON-JSON-01001 Unable to parse input into json node
    at org.camunda.spin.impl.json.jackson.JacksonJsonLogger.unableToParseInput(JacksonJsonLogger.java:42)
    at
org.camunda.spin.impl.json.jackson.format.JacksonJsonDataFormatReader.readInput(JacksonJsonDataFormatReader.java:56)
    at org.camunda.spin.impl.SpinnFactoryImpl.createSpinFromReader(SpinnFactoryImpl.java:159)
    at org.camunda.spin.impl.SpinnFactoryImpl.createSpin(SpinnFactoryImpl.java:73)
    at org.camunda.spin.impl.SpinnFactoryImpl.createSpinFromString(SpinnFactoryImpl.java:152)
    at org.camunda.spin.impl.SpinnFactoryImpl.createSpin(SpinnFactoryImpl.java:70)
    at org.camunda.spin.impl.SpinnFactoryImpl.createSpin(SpinnFactoryImpl.java:89)
    at org.camunda.spin.Spinn.S(Spinn.java:55)
    at jdk.scripting.nashorn.scripts/jdk.nashorn.internal.scripts.Script$631$$_eval_1:program(<eval>:1)
    at jdk.scripting.nashorn/jdk.nashorn.internal.runtime.ScriptFunctionData.invoke(ScriptFunctionData.java:655)
    at jdk.scripting.nashorn/jdk.nashorn.internal.runtime.ScriptFunction.invoke(ScriptFunction.java:513)
    at jdk.scripting.nashorn/jdk.nashorn.internal.runtime.ScriptRuntime.apply(ScriptRuntime.java:527)
    at jdk.scripting.nashorn/jdk.nashorn.api.scripting.NashornScriptEngine.evalImpl(NashornScriptEngine.java:456)
    at jdk.scripting.nashorn/jdk.nashorn.api.scripting.NashornScriptEngine.evalImpl(NashornScriptEngine.java:413)
    at jdk.scripting.nashorn/jdk.nashorn.api.scripting.NashornScriptEngine.evalImpl(NashornScriptEngine.java:409)
    at jdk.scripting.nashorn/jdk.nashorn.api.scripting.NashornScriptEngine.eval(NashornScriptEngine.java:162)
    at java.scripting/javas.script.AbstractScriptEngine.eval(AbstractScriptEngine.java:233)
    at org.camunda.bpm.engine.impl.scripting.SourceExecutableScript.evaluateScript(SourceExecutableScript.java:125)
```

Camunda

Untuk melakukan rerun activity yang error dapat men-klik button action

Variables	Incidents	Called Process Instances	User Tasks	Jobs	Audit Log	External Tasks				
Message	Timestamp	Activity	Falling Activity		Cause Process Instance ID	Root Cause Process Instance ID	Type	Annotation	Action	
SPIN/JACKSON-JSON-0100...	2024-05-13T15:26:05	Upload File Consent Trusting Social	Upload File Consent Trusting Social				Failed Job			



RabbitMQ

- RabbitMQ digunakan untuk queuing proses integrasi antar subsystem di R3 atau dari R3 ke R2 dan sebaliknya
- Issue-issue yang biasa terjadi pada RabbitMQ
 - Request tidak masuk ke Queue
 - Request nyangkut di Queue
 - Request sudah ditarik dari Queue tetapi tidak sampai ke system tujuan

Cara Solve Issue RabbitMQ

- Request tidak masuk ke Queue
 - Bisa di cek dari yang mengirim request apakah ada masalah saat mengirimkan request seperti masalah koneksi atau ada kesalahan setting URL RabbitMQ
- Request nyangkut di Queue
 - Bisa di cek apakah ada consumer yang sudah aktif yang sedang listening ke Queue
- Request sudah ditarik dari Queue tetapi tidak sampai ke tujuan
 - Bisa di cek di Consumer apakah ada trouble pada saat hit API tujuan seperti tidak bisa connect dari consumer ke API tujuan atau di API tujuan terdapat error

Tips tools pemilihan debugging

- Jika issue terdapat pada halaman Front End
 - dev tools - console
 - dev tools - network
- jika issue sudah terdetect ada di API (Back End)
 - dev tools - network
 - db logging
 - visual studio
- jika issue ada pada saat transaksi ke database
 - profiler
- jika issue ada pada store procedure
 - syntax print/select

Issue Common

- System.NullReferenceException: 'Object reference not set to an instance of an object.'
 - error terjadi pada saat mengakses object yang memiliki value null

```
csharp Salin kode  
  
class Program  
{  
    static void Main(string[] args)  
    {  
        MyClass myObject = null;  
        Console.WriteLine(myObject.SomeProperty); // Ini akan menyebabkan "Object ref  
    }  
}
```

Issue Common

- sequence contain more than one element
 - error terjadi pada code yang mengharuskan mendapatkan 1 data tetapi nyatanya mendapatkan banyak data

csharp

```
List<int> numbers = new List<int> { 1, 2, 3 };  
int singleNumber = numbers.Single(); // Akan meI
```

First vs Single

- **FirstOrDefault** returns a first item of potentially multiple (or default if none exists).
- **SingleOrDefault** assumes that there is a single item and returns it (or default if none exists).

Multiple items are a violation of contract, an exception is thrown.


```
int a;           // default = 0
bool b;          // default = false
string c;        // default = null
DateTime d;      // default = DateTime.MinValue
MyClass obj;     // default = null
Nullable<double> x; // default = null
```

Issue Common

- sequence contain no element
 - error terjadi pada code yang mengharuskan mendapatkan data tetapi nyatanya tidak mendapatkan data

```
class Program
{
    static void Main()
    {
        List<int> numbers = new List<int>();

        // Ini akan menyebabkan "InvalidOperationException: Sequence contains no elem
        int firstNumber = numbers.First();
    }
}
```



Issue Common

- Input string was not in correct format
 - error terjadi pada code yang ingin melakukan convert tipe data tapi value yang akan diconvert tidak sesuai dengan tipe data yang dituju

```
class Program
{
    static void Main()
    {
        string inputString = "abc";

        // Langsung melakukan parsing tanpa TryParse atau try-catch
        int result = int.Parse(inputString);
        Console.WriteLine("Parsing berhasil. Nilai integer: " + result);
    }
}
```

Issue Common

- <https://adins3.sharepoint.com/sites/ConfinsR3CodeGuideline/SitePages/Common-Issue-%26-How-To-Fix-It.aspx>

Tips menjelaskan issue kepada customer

Sebelum menjelaskan ke customer

- Dapat detail penjelasan dari issue tersebut
- Bisa reproduce error.

Point yang wajib ada

- Context issuenya apa
- Root causenya apa
- Solusinya apa (kalau sudah ada)

Post test