

# IdentityReconciliationServiceTesting

## Negative scenerios

### Email is missing

POST  Send

Query Headers  Auth Body  Tests Pre Run

**JSON** XML Text Form Form-encode GraphQL Binary

JSON Content Format

```
1 {
2   "phone_number": "9410051646"
3 }
```

Status: **400 Bad Request** Size: **94 Bytes** Time: **21 ms**

Response Headers  Cookies Results Docs { } ≡

```
1 {
2   "code": 400,
3   "message": "email field is missing",
4   "trace": "05fe6a25-7546-4322-b80c-191b12d83cf4"
5 }
```

### Invalid email

POST  Send

Query Headers  Auth Body  Tests Pre Run

**JSON** XML Text Form Form-encode GraphQL Binary

JSON Content Format

```
1 {
2   "email": "hello2gmail.com",
3   "phone_number": "9410051646"
4 }
```

Status: **400 Bad Request** Size: **130 Bytes** Time: **10 ms**

Response Headers  Cookies Results Docs { } ≡

```
1 {
2   "code": 400,
3   "message": "invalid email found, err : mail: missing '@' or angle-addr",
4   "trace": "bd013342-25b4-43ec-8c98-845153684dbe"
5 }
```

## Logs

```

- using env: export GIN_MODE=release
- using code: gin.SetMode(gin.ReleaseMode)

[GIN-debug] POST /v1/identify --> github.com/identity-reconciliation/internal/server.registerIdentifyEndPoints.Identify.func1 (3 handlers)
2023/11/25 02:04:07 Starting Server
2023-11-25T02:06:56.307+0530 INFO middleware/middleware.go:37 request received for identify endpoint, txid : f32140df-d210-4232-a356-04e446c7a11c
2023-11-25T02:06:56.308+0530 INFO service/service.go:45 received request for identify endpoint, txid : f32140df-d210-4232-a356-04e446c7a11c
2023-11-25T02:06:56.308+0530 INFO service/service.go:48 identify request is unmarshalled successfully, txid : f32140df-d210-4232-a356-04e446c7a11c
2023-11-25T02:06:56.308+0530 INFO service/service.go:67 calling do layer for identify request, txid : f32140df-d210-4232-a356-04e446c7a11c
2023-11-25T02:06:56.315+0530 INFO db/identifyoperations.go:47 no existing contact found for the given request, txid : f32140df-d210-4232-a356-04e446c7a11c
2023-11-25T02:06:56.315+0530 INFO db/identifyoperations.go:69 new contact created for the given request, txid : f32140df-d210-4232-a356-04e446c7a11c
2023-11-25T02:07:13.189+0530 INFO middleware/middleware.go:37 request received for identify endpoint, txid : 05fe6a25-7546-4322-b80c-191b12d83cf4
2023-11-25T02:07:13.190+0530 ERROR middleware/middleware.go:47 email field is missing, txid : 05fe6a25-7546-4322-b80c-191b12d83cf4
github.com/identity-reconciliation/internal/middleware.validateIdentifyInput
    /Users/ankitchahal/dev/go/src/github.com/identity-reconciliation/internal/middleware/middleware.go:47
github.com/identity-reconciliation/internal/server.Start.ValidateInputRequest.func2
    /Users/ankitchahal/dev/go/src/github.com/identity-reconciliation/internal/middleware/middleware.go:31
github.com/gin-gonic/gin.(*Context).Next
    /Users/ankitchahal/dev/go/pkg/mod/github.com/gin-gonic/gin@v1.9.1/context.go:174
github.com/gin-gonic/gin.CustomRecoveryWithWriter.func1
    /Users/ankitchahal/dev/go/pkg/mod/github.com/gin-gonic/gin@v1.9.1/recovery.go:102
github.com/gin-gonic/gin.(*Context).Next
    /Users/ankitchahal/dev/go/pkg/mod/github.com/gin-gonic/gin@v1.9.1/context.go:174
github.com/gin-gonic/gin.(*Engine).HandleHTTPRequest
    /Users/ankitchahal/dev/go/pkg/mod/github.com/gin-gonic/gin@v1.9.1/gin.go:620
github.com/gin-gonic/gin.(*Engine).ServeHTTP
    /Users/ankitchahal/dev/go/pkg/mod/github.com/gin-gonic/gin@v1.9.1/gin.go:576
net/http.serverHandler.ServeHTTP
    /opt/homebrew/Cellar/go/1.21.4/libexec/src/net/http/server.go:2938
net/http.(*conn).serve
    /opt/homebrew/Cellar/go/1.21.4/libexec/src/net/http/server.go:2009
2023-11-25T02:07:37.602+0530 INFO middleware/middleware.go:37 request received for identify endpoint, txid : bd013342-25b4-43ec-8c98-845153684dbe
2023-11-25T02:07:37.602+0530 ERROR middleware/middleware.go:55 email received is incorrect, txid : bd013342-25b4-43ec-8c98-845153684dbe
github.com/identity-reconciliation/internal/middleware.validateIdentifyInput
    /Users/ankitchahal/dev/go/src/github.com/identity-reconciliation/internal/middleware/middleware.go:55

```

This is not the nil pointer exception, this is stack trace.

## Phone number missing

The screenshot shows a Postman request to `http://0.0.0.0:8080/v1/identify`. The body contains a JSON object with `"email": "hello2@gmail.com"` and an empty `"phone_number"` field. The response status is 400 Bad Request, with a message: `"phone_number field is missing"`.

POST		http://0.0.0.0:8080/v1/identify	Send			
Query	Headers 3	Auth	<u>Body 1</u>	Tests	Pre Run	
JSON	XML	Text	Form	Form-encode	GraphQL	Binary
JSON Content Format						
<pre> 1 { 2   "email": "hello2@gmail.com", 3   "phone_number": "" 4 }</pre>						

Status: 400 Bad Request		Size: 101 Bytes	Time: 13 ms	
Response	Headers 4	Cookies	Results	Docs
<pre> 1 { 2   "code": 400, 3   "message": "phone_number field is missing", 4   "trace": "6ea3a55b-9802-4d58-8b16-fe9dc4587417" 5 }</pre>				

## Logs

```

2023-11-25T02:11:57.360+0530 INFO middleware/middleware.go:37 request received for identify endpoint, txid : 6ea3a55b-9802-4d58-8b16-fe9dc4587417
2023-11-25T02:11:57.360+0530 ERROR middleware/middleware.go:62 phone_number field is missing, txid : 6ea3a55b-9802-4d58-8b16-fe9dc4587417
github.com/identity-reconciliation/internal/middleware.validateIdentifyInput
    /Users/ankitchahal/dev/go/src/github.com/identity-reconciliation/internal/middleware/middleware.go:62
github.com/identity-reconciliation/internal/server.Start.ValidateInputRequest.func2
    /Users/ankitchahal/dev/go/pkg/mod/github.com/identity-reconciliation/internal/middleware/middleware.go:31
github.com/gin-gonic/gin.(*Context).Next
    /Users/ankitchahal/dev/go/pkg/mod/github.com/gin-gonic/gin@v1.9.1/context.go:174
github.com/gin-gonic/gin.CustomRecoveryWithWriter.func1
    /Users/ankitchahal/dev/go/pkg/mod/github.com/gin-gonic/gin@v1.9.1/recovery.go:102
github.com/gin-gonic/gin.(*Context).Next
    /Users/ankitchahal/dev/go/pkg/mod/github.com/gin-gonic/gin@v1.9.1/context.go:174
github.com/gin-gonic/gin.(*Engine).HandleHTTPRequest
    /Users/ankitchahal/dev/go/pkg/mod/github.com/gin-gonic/gin@v1.9.1/gin.go:620
github.com/gin-gonic/gin.(*Engine).ServeHTTP
    /Users/ankitchahal/dev/go/pkg/mod/github.com/gin-gonic/gin@v1.9.1/gin.go:576
net/http.serverHandler.ServeHTTP
    /opt/homebrew/Cellar/go/1.21.4/libexec/src/net/http/server.go:2938
net/http.(*conn).serve
    /opt/homebrew/Cellar/go/1.21.4/libexec/src/net/http/server.go:2009

```

## DB state

```

14
15 select * from contacts;
16 delete from contacts;
17
18 SELECT * FROM contacts WHERE email = 'hello1@gmail.com' OR phoneNumber = '2'
19
20 select *

```

Data Output Messages Notifications

	<b>id</b> [PK] integer	<b>phonenumber</b> text	<b>email</b> text	<b>linkedid</b> integer	<b>linkprecedence</b> text	<b>createdat</b> timestamp with time zone	<b>updatedat</b> timestamp with time zone	<b>deletedat</b> timestamp with time zone
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## Positive Scenario

- No SecondaryIds as it is new/fresh contact

POST <http://0.0.0.0:8080/v1/identify> Send

Query	Headers 3	Auth	<b>Body 1</b>	Tests	Pre Run
JSON XML Text Form Form-encode GraphQL Binary					
JSON Content			Format		

```

1 {
2   "email": "hello2@gmail.com",
3   "phone_number": "9410051646"
4 }

```

Status: 200 OK Size: 87 Bytes Time: 21 ms

Response	Headers 4	Cookies	Results	Docs
1 { 2   "primary_contact_id": 122, 3   "emails": [ 4     "hello2@gmail.com" 5   ], 6   "phone_numbers": [ 7     "9410051646" 8 ] 9 }				{ } ⚙️

```

18 SELECT * FROM contacts WHERE email = 'hello2@gmail.com' OR phoneNumber = '2'
19
20 select *

```

Data Output Messages Notifications

	<b>id</b> [PK] integer	<b>phonenumber</b> text	<b>email</b> text	<b>linkedid</b> integer	<b>linkprecedence</b> text	<b>createdat</b> timestamp with time zone	<b>updatedat</b> timestamp with time zone	<b>deletedat</b> timestamp with time zone
1	122	9410051646	hello2@gmail.com	[null]	primary	2023-11-25 02:26:57.740786+05:30	2023-11-25 02:26:57.740786+05:30	[null]

```

2023-11-25T02:26:57.731+0530 INFO middleware/middleware.go:37 request received for identify endpoint, txid : 4d29c841-8d1e-4aa2-857e-acf6a8e41d9e
2023-11-25T02:26:57.731+0530 INFO service/service.go:45 received request for identify endpoint, txid : 4d29c841-8d1e-4aa2-857e-acf6a8e41d9e
2023-11-25T02:26:57.731+0530 INFO service/service.go:48 identify request is unmarshalled successfully, txid : 4d29c841-8d1e-4aa2-857e-acf6a8e41d9e
2023-11-25T02:26:57.731+0530 INFO service/service.go:67 calling db layer for identify request, txid : 4d29c841-8d1e-4aa2-857e-acf6a8e41d9e
2023-11-25T02:26:57.740+0530 INFO db/identifyoperations.go:56 no existing contact found for the given request, txid : 4d29c841-8d1e-4aa2-857e-acf6a8e41d9e
2023-11-25T02:26:57.741+0530 INFO db/identifyoperations.go:77 new contact created for the given request, txid : 4d29c841-8d1e-4aa2-857e-acf6a8e41d9e

```

Calling : identify API with same phone number but different email

POST  http://0.0.0.0:8080/v1/identify

Query Headers  Auth Body  Tests Pre Run

**JSON** XML Text Form Form-encode GraphQL Binary

JSON Content Format

```

1  {
2    "primary_contact_id": 122,
3    "emails": [
4      "hello2@gmail.com",
5      "hello3@gmail.com"
6    ],
7    "phone_numbers": [
8      "9410051646"
9    ],
10   "secondary_contact_ids": [
11     123
12   ]
13 }
```

Status: 200 OK Size: 136 Bytes Time: 21 ms

Response Headers  Cookies Results Docs { } ≡

Data Output Messages Notifications

	<b>id</b> [PK] integer ↗	<b>phonenumber</b> text ↗	<b>email</b> text ↗	<b>linkedid</b> integer ↗	<b>linkprecedence</b> text ↗	<b>createdat</b> timestamp with time zone ↗	<b>updatedat</b> timestamp with time zone ↗	<b>deletedat</b> timestamp with time zone ↗
1	122	9410051646	hello2@gmail.com	[null]	primary	2023-11-25 02:26:57.740786+05:30	2023-11-25 02:26:57.740786+05:30	[null]
2	123	9410051646	hello3@gmail.com	122	secondary	2023-11-25 02:28:09.869111+05:30	2023-11-25 02:28:09.869111+05:30	[null]

In the new record link precedence is secondary and linkedId is 122.

Again Calling : identify API with same phone number but different email

POST <http://0.0.0.0:8080/v1/identify>

**Body 1**

```

1 {
2   "email": "hello4@gmail.com",
3   "phone_number": "9410051646"
4 }

```

Status: 200 OK Size: 159 Bytes Time: 17 ms

**Response**

```

1 {
2   "primary_contact_id": 122,
3   "emails": [
4     "hello2@gmail.com",
5     "hello3@gmail.com",
6     "hello4@gmail.com"
7   ],
8   "phone_numbers": [
9     "9410051646"
10  ],
11  "secondary_contact_ids": [
12    123,
13    124
14  ]
15 }

```

	<b>id</b> [PK] integer	<b>phononenumber</b> text	<b>email</b> text	<b>linkedid</b> integer	<b>linkprecedence</b> text	<b>createdat</b> timestamp with time zone	<b>updatedat</b> timestamp with time zone	<b>deletedat</b> timestamp with time zone
1	123	9410051646	hello3@gmail.com	122	secondary	2023-11-25 02:28:09.86911+05:30	2023-11-25 02:28:09.86911+05:30	[null]
2	122	9410051646	hello2@gmail.com	[null]	primary	2023-11-25 02:26:57.740786+05:30	2023-11-25 02:26:57.740786+05:30	[null]
3	124	9410051646	hello4@gmail.com	122	secondary	2023-11-25 02:29:44.157338+05:30	2023-11-25 02:29:44.157338+05:30	[null]

Both the last two identity are secondary only.

Calling : identify API with different phone number but with email  
hello2@gmail.com

POST <http://0.0.0.0:8080/v1/identify>

**Body 1**

```

1 {
2   "email": "hello2@gmail.com",
3   "phone_number": "9410051647"
4 }

```

Status: 200 OK Size: 130 Bytes Time: 18 ms

**Response**

```

1 {
2   "primary_contact_id": 122,
3   "emails": [
4     "hello2@gmail.com"
5   ],
6   "phone_numbers": [
7     "9410051646",
8     "9410051647"
9   ],
10  "secondary_contact_ids": [
11    125
12  ]
13 }

```

Data Output Messages Notifications

	<b>id</b> [PK] integer	<b>phonenumber</b> text	<b>email</b> text	<b>linkedid</b> integer	<b>linkprecedence</b> text	<b>createdat</b> timestamp with time zone	<b>updatedat</b> timestamp with time zone	<b>deletedat</b> timestamp with time zone
1	123	9410051646	hello3@gmail.com	122	secondary	2023-11-25 02:28:09.86911+05:30	2023-11-25 02:28:09.86911+05:30	[null]
2	122	9410051646	hello2@gmail.com	[null]	primary	2023-11-25 02:26:57.740786+05:30	2023-11-25 02:26:57.740786+05:30	[null]
3	124	9410051646	hello4@gmail.com	122	secondary	2023-11-25 02:29:44.157338+05:30	2023-11-25 02:29:44.157338+05:30	[null]
4	125	9410051647	hello2@gmail.com	122	secondary	2023-11-25 02:31:24.115799+05:30	2023-11-25 02:31:24.115799+05:30	[null]

Again Calling : identify API with different phone number but with email  
hello2@gmail.com

POST <http://0.0.0.0:8080/v1/identify> Send

Query	Headers 3	Auth	<b>Body 1</b>	Tests	Pre Run	
JSON	XML	Text	Form	Form-encode	GraphQL	Binary

JSON Content Format

```

1 {
2   "email": "hello2@gmail.com",
3   "phone_number": "9410051648"
4 }
```

Status: 200 OK Size: 147 Bytes Time: 14 ms

Response	Headers 4	Cookies	Results	Docs
1 { 2   "primary_contact_id": 122, 3   "emails": [ 4     "hello2@gmail.com" 5   ], 6   "phone_numbers": [ 7     "9410051646", 8     "9410051647", 9     "9410051648" 10  ], 11  "secondary_contact_ids": [ 12    125, 13    126 14  ] 15 }				

Data Output Messages Notifications

	<b>id</b> [PK] integer	<b>phonenumber</b> text	<b>email</b> text	<b>linkedid</b> integer	<b>linkprecedence</b> text	<b>createdat</b> timestamp with time zone	<b>updatedat</b> timestamp with time zone	<b>deletedat</b> timestamp with time zone
1	122	9410051646	hello3@gmail.com	[null]	primary	2023-11-25 02:26:57.740786+05:30	2023-11-25 02:26:57.740786+05:30	[null]
2	126	9410051648	hello2@gmail.com	122	secondary	2023-11-25 02:32:30.35083+05:30	2023-11-25 02:32:30.35083+05:30	[null]
3	123	9410051646	hello3@gmail.com	122	secondary	2023-11-25 02:28:09.86911+05:30	2023-11-25 02:28:09.86911+05:30	[null]
4	124	9410051646	hello4@gmail.com	122	secondary	2023-11-25 02:29:44.157338+05:30	2023-11-25 02:29:44.157338+05:30	[null]
5	125	9410051647	hello2@gmail.com	122	secondary	2023-11-25 02:31:24.115799+05:30	2023-11-25 02:31:24.115799+05:30	[null]

New identity is also secondary