Friend Management

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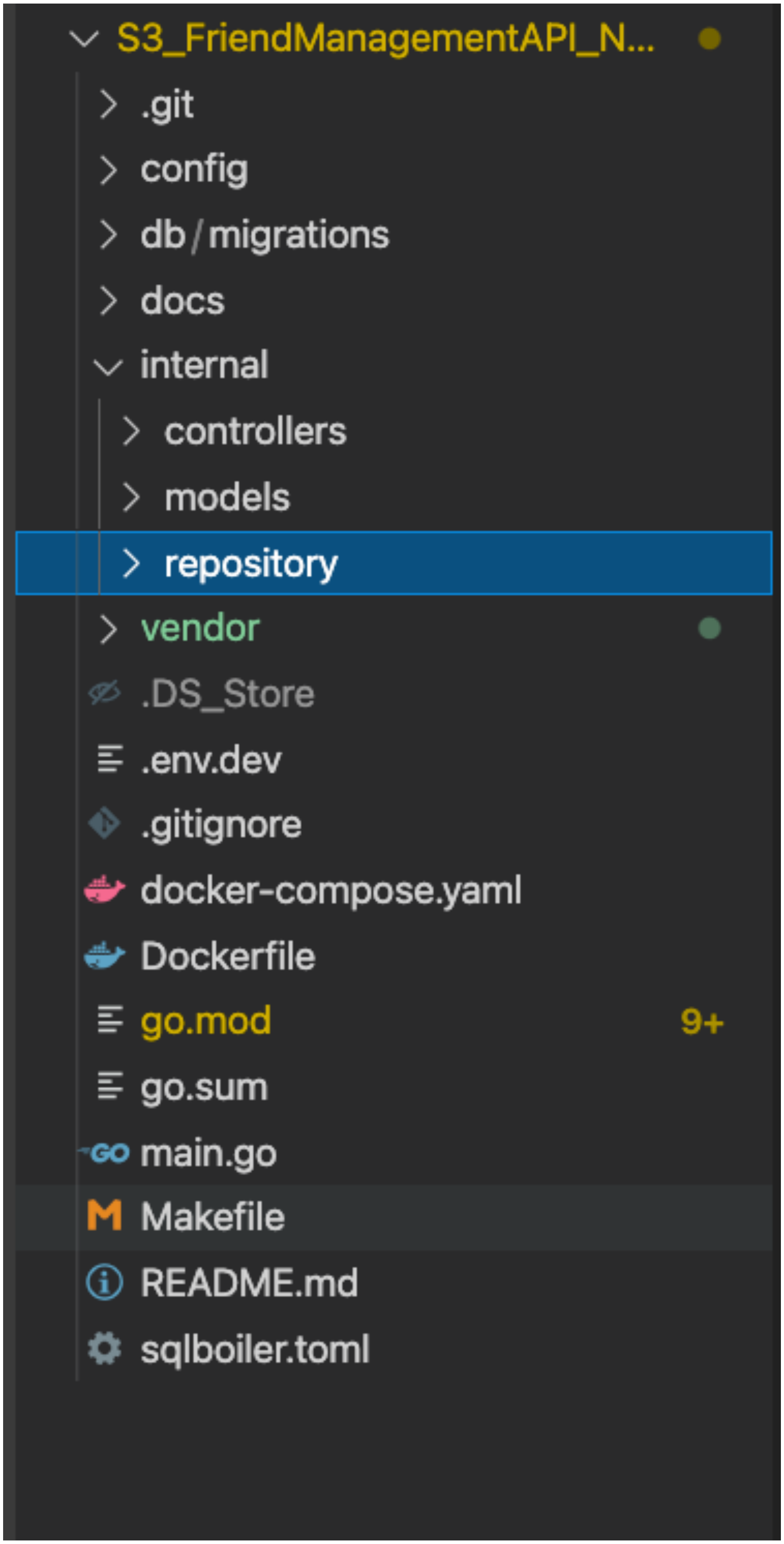
I. Project structure



```
S3_FriendManagementAPI_N...
  .git
  config
  db / migrations
  docs
  internal
    controllers
    models
    repository
  vendor
  .DS_Store
  .env.dev
  .gitignore
  docker-compose.yaml
  Dockerfile
  go.mod                      9+
  go.sum
  main.go
  Makefile
  README.md
  sqlboiler.toml
```

II. Workflow

Request => Controllers => Services => Repositories => Database

- Controller: Get request from http request, decode, validate, call controller, write http response.
- Service: Handler business logic, call repositories.
- Repository: Data access layer.

III. Technologies

- Golang: go module, go-chi, sqlboiler, db-migration, mockery
- Postgres
- Docker
- Makefile

IV. Setup application

- Make sure that your Docker is up and running
- From folder `S3_FriendManagementAPI_NhutTo/`, run command `make setup`

V. Running

- Run app:
  Start the server with command `make run`
  Server running on: `https://localhost:8080`
- Run test:
  Run unit test with command `make test`
  Unit test results:

```
?   github.com/ToTranMinhNhut/S3_FriendManagementAPI_NhutTo [no test
files]
?   github.com/ToTranMinhNhut/S3_FriendManagementAPI_NhutTo/config
    [no test files]
=== RUN   TestControllers_GetUsers
=== RUN   TestControllers_GetUsers/success_with_an_empty_input
=== RUN   TestControllers_GetUsers/failed_with_an_unknow_format_input
--- PASS: TestControllers_GetUsers (0.00s)
    --- PASS: TestControllers_GetUsers/success_with_an_empty_input
(0.00s)
    --- PASS:
TestControllers_GetUsers/failed_with_an_unknow_format_input (0.00s)
=== RUN   TestControllers_CreateFriends
=== RUN
TestControllers_CreateFriends/failed_with_an_input_validation_failure_
(number_of_emails_are_wrong)
=== RUN   TestControllers_CreateFriends/success_with_an_input
=== RUN
TestControllers_CreateFriends/failed_with_an_unknow_format_input
=== RUN
TestControllers_CreateFriends/failed_with_an_input_validation_failure_
(two_emails_are_similar)
```

```
=== RUN
TestControllers_CreateFriends/failed_with_an_input_validation_failure_
(email_invalid_format)
--- PASS: TestControllers_CreateFriends (0.00s)
    --- PASS:
TestControllers_CreateFriends/failed_with_an_input_validation_failure_
(number_of_emails_are_wrong) (0.00s)
    --- PASS: TestControllers_CreateFriends/success_with_an_input
(0.00s)
    --- PASS:
TestControllers_CreateFriends/failed_with_an_unknow_format_input
(0.00s)
    --- PASS:
TestControllers_CreateFriends/failed_with_an_input_validation_failure_
(two_emails_are_similar) (0.00s)
    --- PASS:
TestControllers_CreateFriends/failed_with_an_input_validation_failure_
(email_invalid_format) (0.00s)
=== RUN   TestControllers_GetFriends
=== RUN   TestControllers_GetFriends/success_with_an_input
=== RUN
TestControllers_GetFriends/failed_with_an_unknow_format_input
=== RUN
TestControllers_GetFriends/failed_with_an_input_validation_failure
--- PASS: TestControllers_GetFriends (0.00s)
    --- PASS: TestControllers_GetFriends/success_with_an_input (0.00s)
    --- PASS:
TestControllers_GetFriends/failed_with_an_unknow_format_input (0.00s)
    --- PASS:
TestControllers_GetFriends/failed_with_an_input_validation_failure
(0.00s)
=== RUN   TestControllers_GetCommonFriends
=== RUN   TestControllers_GetCommonFriends/success_with_an_input
=== RUN
TestControllers_GetCommonFriends/failed_with_an_unknow_format_input
=== RUN
TestControllers_GetCommonFriends/failed_with_an_input_validation_failu
re_(two_emails_are_similar)
=== RUN
TestControllers_GetCommonFriends/failed_with_an_input_validation_failu
re_(email_invalid_format)
=== RUN
TestControllers_GetCommonFriends/failed_with_an_input_validation_failu
re_(number_of_emails_are_wrong)
--- PASS: TestControllers_GetCommonFriends (0.00s)
    --- PASS: TestControllers_GetCommonFriends/success_with_an_input
(0.00s)
    --- PASS:
TestControllers_GetCommonFriends/failed_with_an_unknow_format_input
(0.00s)
```

```
    --- PASS:
TestControllers_GetCommonFriends/failed_with_an_input_validation_failu
re_(two_emails_are_similar) (0.00s)
    --- PASS:
TestControllers_GetCommonFriends/failed_with_an_input_validation_failu
re_(email_invalid_format) (0.00s)
    --- PASS:
TestControllers_GetCommonFriends/failed_with_an_input_validation_failu
re_(number_of_emails_are_wrong) (0.00s)
=== RUN   TestControllers_CreateSubcription
=== RUN
TestControllers_CreateSubcription/failed_with_an_unknow_format_input
=== RUN
TestControllers_CreateSubcription/failed_with_an_input_validation_fail
ure_(two_emails_are_similar)
=== RUN
TestControllers_CreateSubcription/failed_with_an_input_validation_fail
ure_(email_invalid_format)
=== RUN
TestControllers_CreateSubcription/failed_with_an_input_validation_fail
ure_(target_invalid)
=== RUN
TestControllers_CreateSubcription/failed_with_an_input_validation_fail
ure_(requestor_invalid)
=== RUN   TestControllers_CreateSubcription/success_with_an_input
--- PASS: TestControllers_CreateSubcription (0.00s)
    --- PASS:
TestControllers_CreateSubcription/failed_with_an_unknow_format_input
(0.00s)
    --- PASS:
TestControllers_CreateSubcription/failed_with_an_input_validation_fail
ure_(two_emails_are_similar) (0.00s)
    --- PASS:
TestControllers_CreateSubcription/failed_with_an_input_validation_fail
ure_(email_invalid_format) (0.00s)
    --- PASS:
TestControllers_CreateSubcription/failed_with_an_input_validation_fail
ure_(target_invalid) (0.00s)
    --- PASS:
TestControllers_CreateSubcription/failed_with_an_input_validation_fail
ure_(requestor_invalid) (0.00s)
    --- PASS: TestControllers_CreateSubcription/success_with_an_input
(0.00s)
=== RUN   TestControllers_CreateUserBlocks
=== RUN
TestControllers_CreateUserBlocks/failed_with_an_unknow_format_input
=== RUN
TestControllers_CreateUserBlocks/failed_with_an_input_validation_failu
re_(two_emails_are_similar)
```

```
=== RUN
TestControllers_CreateUserBlocks/failed_with_an_input_validation_failu
re_(email_invalid_format)
=== RUN
TestControllers_CreateUserBlocks/failed_with_an_input_validation_failu
re_(target_invalid)
=== RUN
TestControllers_CreateUserBlocks/failed_with_an_input_validation_failu
re_(requestor_invalid)
=== RUN   TestControllers_CreateUserBlocks/success_with_an_input
--- PASS: TestControllers_CreateUserBlocks (0.00s)
    --- PASS:
TestControllers_CreateUserBlocks/failed_with_an_unknow_format_input
(0.00s)
    --- PASS:
TestControllers_CreateUserBlocks/failed_with_an_input_validation_failu
re_(two_emails_are_similar) (0.00s)
    --- PASS:
TestControllers_CreateUserBlocks/failed_with_an_input_validation_failu
re_(email_invalid_format) (0.00s)
    --- PASS:
TestControllers_CreateUserBlocks/failed_with_an_input_validation_failu
re_(target_invalid) (0.00s)
    --- PASS:
TestControllers_CreateUserBlocks/failed_with_an_input_validation_failu
re_(requestor_invalid) (0.00s)
    --- PASS: TestControllers_CreateUserBlocks/success_with_an_input
(0.00s)
=== RUN   TestControllers_GetRecipientEmails
=== RUN   TestControllers_GetRecipientEmails/success_with_an_input
=== RUN
TestControllers_GetRecipientEmails/failed_with_an_unknow_format_input
=== RUN
TestControllers_GetRecipientEmails/failed_with_an_input_validation_fai
lure_(email_invalid_format)
=== RUN
TestControllers_GetRecipientEmails/failed_with_an_input_validation_fai
lure_(target_invalid)
=== RUN
TestControllers_GetRecipientEmails/failed_with_an_input_validation_fai
lure_(requestor_invalid)
--- PASS: TestControllers_GetRecipientEmails (0.00s)
    --- PASS: TestControllers_GetRecipientEmails/success_with_an_input
(0.00s)
    --- PASS:
TestControllers_GetRecipientEmails/failed_with_an_unknow_format_input
(0.00s)
    --- PASS:
TestControllers_GetRecipientEmails/failed_with_an_input_validation_fai
lure_(email_invalid_format) (0.00s)
```

```
    --- PASS:
TestControllers_GetRecipientEmails/failed_with_an_input_validation_fai
lure_(target_invalid) (0.00s)
    --- PASS:
TestControllers_GetRecipientEmails/failed_with_an_input_validation_fai
lure_(requestor_invalid) (0.00s)
PASS
ok
    github.com/ToTranMinhNhut/S3_FriendManagementAPI_NhutTo/internal/c
ontrollers   (cached)
?
    github.com/ToTranMinhNhut/S3_FriendManagementAPI_NhutTo/internal/e
rrs [no test files]
?
    github.com/ToTranMinhNhut/S3_FriendManagementAPI_NhutTo/internal/m
odels    [no test files]
=== RUN   TestRepository_CreateFriend
=== RUN
TestRepository_CreateFriend/query_by_an_unknown_input_userIds
=== RUN
TestRepository_CreateFriend/success_with_adding_input_of_userIds
--- PASS: TestRepository_CreateFriend (0.10s)
    --- PASS:
TestRepository_CreateFriend/query_by_an_unknown_input_userIds (0.05s)
    --- PASS:
TestRepository_CreateFriend/success_with_adding_input_of_userIds
(0.05s)
=== RUN   TestRepository_IsExistedFriend
=== RUN
TestRepository_IsExistedFriend/success_with_adding_input_of_userIds
=== RUN
TestRepository_IsExistedFriend/query_by_an_unknown_input_userIds
--- PASS: TestRepository_IsExistedFriend (0.10s)
    --- PASS:
TestRepository_IsExistedFriend/success_with_adding_input_of_userIds
(0.06s)
    --- PASS:
TestRepository_IsExistedFriend/query_by_an_unknown_input_userIds
(0.04s)
=== RUN   TestRepository_IsBlockedUser
=== RUN
TestRepository_IsBlockedUser/success_with_adding_input_of_userIds
=== RUN
TestRepository_IsBlockedUser/query_by_an_unknown_input_userIds
--- PASS: TestRepository_IsBlockedUser (0.09s)
    --- PASS:
TestRepository_IsBlockedUser/success_with_adding_input_of_userIds
(0.05s)
    --- PASS:
TestRepository_IsBlockedUser/query_by_an_unknown_input_userIds (0.04s)
```

```
=== RUN   TestRepository_GetFriendsByID
=== RUN
TestRepository_GetFriendsByID/query_by_an_unknown_input_userId
=== RUN
TestRepository_GetFriendsByID/success_with_adding_input_of_userId
--- PASS: TestRepository_GetFriendsByID (0.10s)
    --- PASS:
TestRepository_GetFriendsByID/query_by_an_unknown_input_userId (0.05s)
    --- PASS:
TestRepository_GetFriendsByID/success_with_adding_input_of_userId
(0.04s)
=== RUN   TestRepository_GetUserBlocksByID
=== RUN
TestRepository_GetUserBlocksByID/query_by_an_unknown_input_userId
=== RUN
TestRepository_GetUserBlocksByID/success_with_adding_input_of_userId
--- PASS: TestRepository_GetUserBlocksByID (0.08s)
    --- PASS:
TestRepository_GetUserBlocksByID/query_by_an_unknown_input_userId
(0.04s)
    --- PASS:
TestRepository_GetUserBlocksByID/success_with_adding_input_of_userId
(0.04s)
=== RUN   TestRepository_CreateSubscription
=== RUN
TestRepository_CreateSubscription/success_with_adding_input_of_userIds
=== RUN
TestRepository_CreateSubscription/query_by_an_unknown_input_userIds
--- PASS: TestRepository_CreateSubscription (0.09s)
    --- PASS:
TestRepository_CreateSubscription/success_with_adding_input_of_userIds
(0.04s)
    --- PASS:
TestRepository_CreateSubscription/query_by_an_unknown_input_userIds
(0.04s)
=== RUN   TestRepository_GetRecipientEmails
=== RUN
TestRepository_GetRecipientEmails/query_by_an_unknown_input_userId
=== RUN
TestRepository_GetRecipientEmails/success_with_adding_input_of_userId
--- PASS: TestRepository_GetRecipientEmails (0.10s)
    --- PASS:
TestRepository_GetRecipientEmails/query_by_an_unknown_input_userId
(0.05s)
    --- PASS:
TestRepository_GetRecipientEmails/success_with_adding_input_of_userId
(0.05s)
=== RUN   TestRepository_CreateUserBlock
=== RUN
TestRepository_CreateUserBlock/success_with_adding_input_of_userIds
```

```
=== RUN
TestRepository_CreateUserBlock/query_by_an_unknown_input_userIds
--- PASS: TestRepository_CreateUserBlock (0.10s)
    --- PASS:
TestRepository_CreateUserBlock/success_with_adding_input_of_userIds
(0.05s)
    --- PASS:
TestRepository_CreateUserBlock/query_by_an_unknown_input_userIds
(0.05s)
=== RUN   TestRepository_IsSubscribedFriend
=== RUN
TestRepository_IsSubscribedFriend/success_with_adding_input_of_userIds
=== RUN
TestRepository_IsSubscribedFriend/query_by_an_unknown_input_userIds
--- PASS: TestRepository_IsSubscribedFriend (0.09s)
    --- PASS:
TestRepository_IsSubscribedFriend/success_with_adding_input_of_userIds
(0.05s)
    --- PASS:
TestRepository_IsSubscribedFriend/query_by_an_unknown_input_userIds
(0.04s)
=== RUN   TestRepository_GetUserIDByEmail
=== RUN
TestRepository_GetUserIDByEmail/success_with_adding_input_of_email
=== RUN
TestRepository_GetUserIDByEmail/query_by_an_unknown_input_email
--- PASS: TestRepository_GetUserIDByEmail (0.07s)
    --- PASS:
TestRepository_GetUserIDByEmail/success_with_adding_input_of_email
(0.04s)
    --- PASS:
TestRepository_GetUserIDByEmail/query_by_an_unknown_input_email
(0.03s)
=== RUN   TestRepository_GetEmailsByUserIDs
=== RUN
TestRepository_GetEmailsByUserIDs/success_with_adding_input_of_userIds
=== RUN
TestRepository_GetEmailsByUserIDs/query_by_an_unknown_input_userIds
--- PASS: TestRepository_GetEmailsByUserIDs (0.06s)
    --- PASS:
TestRepository_GetEmailsByUserIDs/success_with_adding_input_of_userIds
(0.03s)
    --- PASS:
TestRepository_GetEmailsByUserIDs/query_by_an_unknown_input_userIds
(0.03s)
=== RUN   TestRepository_GetUsers
=== RUN   TestRepository_GetUsers/successfully_get_all_users
--- PASS: TestRepository_GetUsers (0.03s)
    --- PASS: TestRepository_GetUsers/successfully_get_all_users
(0.03s)
```

```
PASS
ok
    github.com/ToTranMinhNhut/S3_FriendManagementAPI_NhutTo/internal/r
epository    (cached)
=== RUN   TestServices_GetUsers
=== RUN   TestServices_GetUsers/successfully_get_all_user
--- PASS: TestServices_GetUsers (0.00s)
    --- PASS: TestServices_GetUsers/successfully_get_all_user (0.00s)
=== RUN   TestServices_CreateFriends
=== RUN   TestServices_CreateFriends/success_with_an_input
=== RUN
TestServices_CreateFriends/failed_with_an_unknow_format_input_of_user
=== RUN
TestServices_CreateFriends/failed_with_an_unknow_format_input_of_frien
d
=== RUN
TestServices_CreateFriends/failed_with_an_friendship_is_existing
=== RUN
TestServices_CreateFriends/failed_with_an_blocking_relationship_is_exi
sting
--- PASS: TestServices_CreateFriends (0.00s)
    --- PASS: TestServices_CreateFriends/success_with_an_input (0.00s)
    --- PASS:
TestServices_CreateFriends/failed_with_an_unknow_format_input_of_user
(0.00s)
    --- PASS:
TestServices_CreateFriends/failed_with_an_unknow_format_input_of_frien
d (0.00s)
    --- PASS:
TestServices_CreateFriends/failed_with_an_friendship_is_existing
(0.00s)
    --- PASS:
TestServices_CreateFriends/failed_with_an_blocking_relationship_is_exi
sting (0.00s)
=== RUN   TestServices_GetFriends
=== RUN   TestServices_GetFriends/success_with_an_input
=== RUN   TestServices_GetFriends/failed_with_an_unknow_format_input
--- PASS: TestServices_GetFriends (0.00s)
    --- PASS: TestServices_GetFriends/success_with_an_input (0.00s)
    --- PASS:
TestServices_GetFriends/failed_with_an_unknow_format_input (0.00s)
=== RUN   TestServices_GetCommonFriends
=== RUN   TestServices_GetCommonFriends/success_with_an_input
=== RUN
TestServices_GetCommonFriends/failed_with_an_unknow_format_input_of_fi
rst_user
=== RUN
TestServices_GetCommonFriends/failed_with_an_unknow_format_input_of_se
cond_user
--- PASS: TestServices_GetCommonFriends (0.00s)
```

```
    --- PASS: TestServices_GetCommonFriends/success_with_an_input
(0.00s)
    --- PASS:
TestServices_GetCommonFriends/failed_with_an_unknow_format_input_of_fi
rst_user (0.00s)
    --- PASS:
TestServices_GetCommonFriends/failed_with_an_unknow_format_input_of_se
cond_user (0.00s)
=== RUN   TestServices_CreateSubcription
=== RUN   TestServices_CreateSubcription/success_with_an_input
=== RUN
TestServices_CreateSubcription/failed_with_an_unknow_format_input_of_r
equestor
=== RUN
TestServices_CreateSubcription/failed_with_an_unknow_format_input_of_t
arget_user
=== RUN
TestServices_CreateSubcription/failed_with_an_subscribed_relatinship_i
s_existing
=== RUN
TestServices_CreateSubcription/failed_with_an_blocking_relationship_is
_existing
--- PASS: TestServices_CreateSubcription (0.00s)
    --- PASS: TestServices_CreateSubcription/success_with_an_input
(0.00s)
    --- PASS:
TestServices_CreateSubcription/failed_with_an_unknow_format_input_of_r
equestor (0.00s)
    --- PASS:
TestServices_CreateSubcription/failed_with_an_unknow_format_input_of_t
arget_user (0.00s)
    --- PASS:
TestServices_CreateSubcription/failed_with_an_subscribed_relatinship_i
s_existing (0.00s)
    --- PASS:
TestServices_CreateSubcription/failed_with_an_blocking_relationship_is
_existing (0.00s)
=== RUN   TestServices_CreateUserBlocks
=== RUN   TestServices_CreateUserBlocks/success_with_an_input
=== RUN
TestServices_CreateUserBlocks/failed_with_an_unknow_format_input_of_re
questor
=== RUN
TestServices_CreateUserBlocks/failed_with_an_unknow_format_input_of_ta
rget_user
=== RUN
TestServices_CreateUserBlocks/failed_with_an_blocking_relationship_is_
existing
--- PASS: TestServices_CreateUserBlocks (0.00s)
```

```
    --- PASS: TestServices_CreateUserBlocks/success_with_an_input
(0.00s)
    --- PASS:
TestServices_CreateUserBlocks/failed_with_an_unknow_format_input_of_re
questor (0.00s)
    --- PASS:
TestServices_CreateUserBlocks/failed_with_an_unknow_format_input_of_ta
rget_user (0.00s)
    --- PASS:
TestServices_CreateUserBlocks/failed_with_an_blocking_relationship_is_
existing (0.00s)
=== RUN   TestServices_GetRecipientEmails
=== RUN   TestServices_GetRecipientEmails/success_with_an_input
=== RUN
TestServices_GetRecipientEmails/failed_with_an_unknow_format_input
--- PASS: TestServices_GetRecipientEmails (0.00s)
    --- PASS: TestServices_GetRecipientEmails/success_with_an_input
(0.00s)
    --- PASS:
TestServices_GetRecipientEmails/failed_with_an_unknow_format_input
(0.00s)
PASS
ok
    github.com/ToTranMinhNhut/S3_FriendManagementAPI_NhutTo/internal/s
ervices  0.011s
        ?
           github.com/ToTranMinhNhut/S3_FriendManagementAPI_NhutTo/int
        ernal/utils   [no test files]
```

VI. List APIs

1. Get users

Get: http://localhost:8080/v1/users

Parameter request: none

1.1 Success:

Status code 200 OK

```
{
  "count": 1,
  "success": true
  "users": [
    "lisa@example.com"
  ]
}
```

1.2 Error: body request invalid

Status code: 400 Bad Request

```
{
  "message": "Body request invalid format",
  "success": false
}
```

2. Create friend

POST: http://localhost:8080/v1/friends

Parameter request:

```
{
  "friends": [
    "andy@example.com",
    "john@example.com"
  ]
}
```

2.1 Success:

Status code: 200 OK

```
{
  "success": true
}
```

2.2 Error: friendship is existing

Status code: 500 Internal Server

```
{
  "message": "The friend relationship has been existed",
  "success": false
}
```

2.3 Error: user is not existing

Status code: 500 Internal Server

```
{
  "message": "test@example.com is not exists",
  "success": false
}
```

2.4 Error: users have blocked by each other

Status code: 500 Internal Server

```
{
  "message": "The users have blocked each other",
  "success": false
}
```

2.5 Error: body request invalid

Status code: 400 Bad Request

```
{
  "message": "Body request invalid format",
  "success": false
}
```

2.6 Error: number of arguments invalid
Status code: 400 Bad Request

```
{
  "message": "number of email addresses must be 2",
  "success": false
}
```

2.7 Error: two emails are similar
Status code: 400 Bad Request

```
{
  "message": "Two email addresses must be different",
  "success": false
}
```

2.8 Error: email invalid format
Status code: 400 Bad Request

```
{
  "message": "andy@examplecom invalid format (ex: \ andy@example.com \)",
  "success": false
}
```

3. **List Friends**

GET: http://localhost:8080/v1/friends
Parameter request:

```
{
  "Email":"andy@example.com"
}
```

3.1 Success
Status code: 200 OK

```
{
  "count": 1,
  "friends": [
    "lisa@example.com"
  ],
  "success": true
}
```

3.2 Error: user is not existing
Status code: 500 Internal Server

```
{
  "message": "test@example.com is not exists",
  "success": false
}
```

3.3 Error: body request invalid

Status code: 400 Bad Request

```
{
 "message": "Body request invalid format",
  "success": false
}
```

3.4 Error: email invalid format

Status code: 400 Bad Request

```
{
  "message": "andy@examplecom invalid format (ex: \ andy@example.com \)",
  "success": false
}
```

4. Get common friends

GET: http://localhost:8080/v1/commonFriends

Parameter request:

```
{
  "friends": [
    "andy@example.com",
    "john@example.com"
  ]
}
```

4.1 Success

Status code: 200 OK

```
{
  "count": 1,
  "friends": [
    "common@example.com"
  ],
  "success": true
}
```

4.2 Error: user is not existing

Status code: 500 Internal Server

```
{
  "message": "test@example.com is not exists",
  "success": false
}
```

4.3 Error: body request invalid
Status code: 400 Bad Request

```
{
  "message": "Body request invalid format",
   "success": false
}
```

4.4 Error: number of arguments invalid
Status code: 400 Bad Request

```
{
   "message": "number of email addresses must be 2",
   "success": false
}
```

4.5 Error: two emails are similar
Status code: 400 Bad Request

```
{
   "message": "Two email addresses must be different",
   "success": false
}
```

4.6 Error: email invalid format
Status code: 400 Bad Request

```
{
   "message": "andy@examplecom invalid format (ex: \ andy@example.com \)",
   "success": false
}
```

5. Create subscription

POST: http://localhost:8080/v1/subscription
Parameter request:

```
{
  "requestor": "andy@example.com",
  "target": "lisa@example.com"
}
```

5.1 Success
Status code: 200 OK

```
{
   "success": true
}
```

5.2 users have blocked by each other

Status code: 500 Internal Server

```
{
   "message": "The users have blocked each other",
   "success": false
}
```

5.3 Error: users have subscribed by each other

Status code: 500 Internal Server

```
{
   "message": "The users have subscribed each other",
   "success": false
}
```

5.4 Error: body request invalid

Status code: 400 Bad Request

```
{
  "message": "Body request invalid format",
   "success": false
}
```

5.5 Error: user is not existing

Status code: 500 Internal Server

```
{
   "message": "test@example.com is not exists",
   "success": false
}
```

5.6 Error: two emails are similar

Status code: 400 Bad Request

```
{
   "message": "Two email addresses must be different",
   "success": false
}
```

5.7 Error: email invalid format

Status code: 400 Bad Request

```
{
   "message": "andy@examplecom invalid format (ex: \ andy@example.com \)",
   "success": false
}
```

5.8 Error: requestor invalid format

Status code: 400 Bad Request

```
{
   "message": "Requestor field invalid format",
   "success": false
}
```

5.9 Error: target emails are similar
Status code: 400 Bad Request

```
{
   "message": "Target field invalid format",
   "success": false
}
```

6 Create user block

POST: http://localhost:8080/v1/blocking
Parameter request:

```
{
   "requestor": "common@example.com",
   "target": "kate@example.com"
}
```

6.1 Success
Status code: 200 OK

```
{
   "success": true
}
```

6.2 Error: users have blocked by each other
Status code: 500 Internal Server

```
{
   "message": "The users have blocked each other",
   "success": false
}
```

6.3 Error: body request invalid
Status code: 400 Bad Request

```
{
  "message": "Body request invalid format",
   "success": false
}
```

6.4 Error: user is not existing
Status code: 500 Internal Server

```
{
   "message": "test@example.com is not exists",
   "success": false
}
```

6.5 Error: two emails are similar

Status code: 400 Bad Request

```
{
   "message": "Two email addresses must be different",
   "success": false
}
```

6.6 Error: email invalid format

Status code: 400 Bad Request

```
{
   "message": "andy@examplecom invalid format (ex: \ andy@example.com \)",
   "success": false
}
```

6.7 Error: requestor invalid format

Status code: 400 Bad Request

```
{
   "message": "Requestor field invalid format",
   "success": false
}
```

6.8 Error: target emails are similar

Status code: 400 Bad Request

```
{
   "message": "Target field invalid format",
   "success": false
}
```

7 Get Recipients

GET: http://localhost:8080 /v1/recipients

Parameter request:

```
{
   "sender": "lisa@example.com",
   "text": "Hello World! kate@example.com"
}
```

7.1 Success

Status code: 200 OK

```
{
   "recipients": [
      "common@example.com",
      "kate@example.com"
```

```
  ],
  "success": true
}
```

7.2 Error: sender is not existing

Status code: 500 Internal Server

```
{
  "message": "test@example.com is not exists",
  "success": false
}
```

7.3 Error: body request invalid

Status code: 400 Bad Request

```
{
 "message": "Body request invalid format",
  "success": false
}
```

7.4 Error: user is not existing

Status code: 500 Internal Server

```
{
  "message": "test@example.com is not exists",
  "success": false
}
```

7.5 Error: email invalid format

Status code: 400 Bad Request

```
{
  "message": "andy@examplecom invalid format (ex: \ andy@example.com \)",
  "success": false
}
```

7.6 Error: sender invalid format

Status code: 400 Bad Request

```
{
  "message": "Sender field invalid format",
  "success": false
}
```