Robot Framework RequestsLibrary

Sample Test Cases with Shopping Cart

- Test Cases: Checkout Diner Set from Store Service
- Tasks:

1.Get Product List

    - input URL PATH: /api/v1/product
    - input HTTP Method: GET
    - input HTTP Headers: Accept application/json
    - assert http status code should be 200
    - assert products should have 2 items
    - assert products should contain '43 Piece dinner Set'

2.Get Product Detail

    - input URL PATH: /api/v1/product/{product id}
    - input HTTP Method: GET
    - input HTTP Headers: Accept application/json
    - assert http status code should be 200
    - assert product name should contain '43 Piece dinner Set'

Sample Test Cases with Shopping Cart

- Test Cases: Checkout Diner Set from Store Service
- Tasks:

3.Order Diner Set

  - input URL PATH: /api/v1/order
  - input HTTP Method: POST
  - input HTTP Headers: Accept application/json
  - input HTTP Headers: Content-Type application/json
  - input HTTP Body
  - assert http status code should be 200
  - assert product total price should be 14.95

4.Confirm Payment

  - input URL PATH: /api/v1/confirmPayment
  - input HTTP Method: POST
  - input HTTP Headers: Accept application/json
  - input HTTP Headers: Content-Type application/json
  - input HTTP Body
  - assert http status code should be 200
  - assert notification message should be 'วันเวลาที่ชำระเงิน 1/3/2020 13:30:00 หมายเลขคำสั่งซื้อ 8004359104 คุณสามารถติดตามสินค้าผ่านช่องทาง Kerry หมายเลข 1785261900'

Sample Test Cases with Shopping Cart

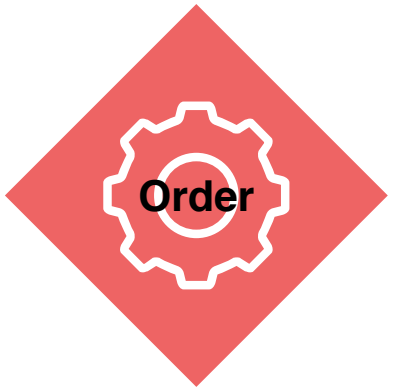
PATH: /api/v1/product
Method: GET
Headers: Accept application/json

http status code is 200
products have 2 items
products contain '43 Piece dinner Set'

PATH: /api/v1/product/{product id}
Method: GET
Headers: Accept application/json

http status code is 200
product name is '43 Piece dinner Set'

PATH: /api/v1/order
Method: POST
Headers: Accept application/json
Headers: Content-Type application/json
Body



http status code is 200
product total price is 14.95

PATH: /api/v1/confirmPayment
Method: POST
Headers: Accept application/json
Headers: Content-Type application/json
Body

notification message is 'วันเวลาที่ชำระเงิน 1/3/2020 13:30:00 หมายเลขคำสั่งซื้อ 8004359104 คุณสามารถติดตามสินค้าผ่านช่องทาง Kerry หมายเลข 1785261900'

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Sample Test Cases with Shopping Cart

- How to pass the id from 'Get Product List' to 'Get Product Detail' id?
- How to pass the return order id from 'Order Diner Set' to 'Confirm Payment' order id?
- Which parameters in each task that we have to concern?
  - consequence
  - specific

HTTP RequestsLibrary(Python)

Library for HTTP level testing using Python Requests internally.

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Prerequisite

1. Python3

2. Robot Framework
   `pip install robotframework`

3. HTTP RequestsLibrary(Python)
   `pip install robotframework-requests`

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Sections in Test Case Files

Robot Framework data is defined in different sections.

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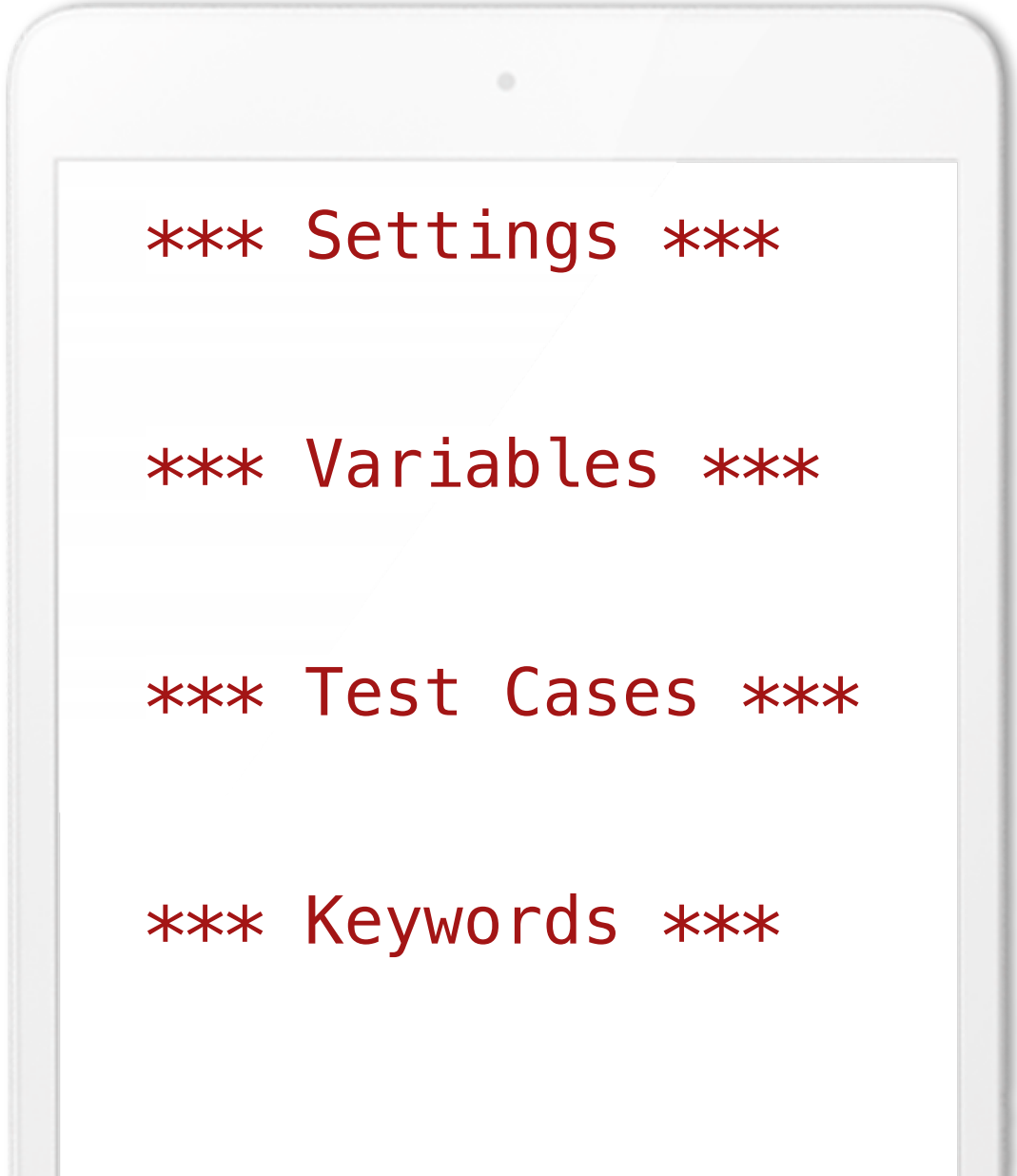

Settings in Test Case Files

import RequestsLibrary

checkout-success.robot

```
*** Settings ***
Library     RequestsLibrary
```

Test Cases in Test Case Files

Get Product List

Assert Product List(Task)

```
Request:
Get Product List        url = api/v1/product
Get Product List        header = Accept=application/json

Response:
Assert                  http status code = 200
Assert                  product total = 2
```

Test Cases in Test Case Files

Create Checkout Diner Set(Test case)

Create Create Session(Task)

checkout-success.robot

```
*** Test Cases ***
Checkout Diner Set
    Create Session   toy_store   http://localhost:8000
```

RequestsLibrary
Create Session API

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Create Session	*alias*, *url*, *headers={}*, *cookies={}*, *auth=None*, *timeout=None*, *proxies=None*, *verify=False*, *debug=0*, *max_retries=3*, *backoff_factor=0.1*, *disable_warnings=0*, *retry_status_list=[]*, *retry_method_list=['DELETE', 'OPTIONS', 'HEAD', 'PUT', 'GET', 'TRACE']*

Create Session: create a HTTP session to a server

`alias` Robot Framework alias to identify the session

`url` Base url of the server

`headers` Dictionary of default headers

`cookies` Dictionary of cookies

`auth` List of username & password for HTTP Basic Auth

`timeout` Connection timeout

`proxies` Dictionary that contains proxy urls for HTTP and HTTPS communication

`verify` Whether the SSL cert will be verified. A CA_BUNDLE path can also be provided.

`debug` Enable http verbosity option more information
https://docs.python.org/2/library/httplib.html#httplib.HTTPConnection.set_debuglevel

`max_retries` Number of maximum retries each connection should attempt. By default it will retry 3 times in case of connection errors only. A 0 value will disable any kind of retries regardless of other retry settings. In case the number of retries is reached a retry exception is raised.

`disable_warnings` Disable requests warning useful when you have large number of testcases

`backoff_factor` Introduces a delay time between retries that is longer after each retry. eg. if backoff_factor is set to 0.1 the sleep between attemps will be: 0.0, 0.2, 0.4 More info here: https://urllib3.readthedocs.io/en/latest/reference/urllib3.util.html

`retry_method_list` List of uppercased HTTP method verbs where retries are allowed. By default retries are allowed only on HTTP requests methods that are considered to be idempotent (multiple requests with the same parameters end with the same state). eg. set to ['POST', 'GET'] to retry only those kind of requests.

`retry_status_list` List of integer HTTP status codes that, if returned, a retry is attempted. eg. set to [502, 503] to retry requests if those status are returned. Note that max_retries must be greater than 0.

Run
Test Case Files

```
$ robot checkout-success-plain.robot
```

Test Cases in Test Case Files

Get Product List(Task)

Assert HTTP Status Code(Task)

checkout-success.robot

```
*** Test Cases ***
Checkout Diner Set
    ...
    ${productList}=   Get Request   toy_store   /api/v1/product
headers=&{accept}
    Status Should Be  200   ${productList}
```

RequestsLibrary
Get Request API

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Get Request	*alias*, *uri*, *headers=None*, *data=None*, *json=None*, *params=None*, *allow_redirects=None*, *timeout=None*

Send a GET request on the session object found using the given *alias*

`alias` that will be used to identify the Session object in the cache

`uri` to send the GET request to

`params` url parameters to append to the uri

`headers` a dictionary of headers to use with the request

`data` a dictionary of key-value pairs that will be urlencoded and sent as GET data or binary data that is sent as the raw body content

`json` a value that will be json encoded and sent as GET data if data is not specified

`allow_redirects` Boolean. Set to True if POST/PUT/DELETE redirect following is allowed.

`timeout` connection timeout

Test Cases in Test Case Files

checkout-success.robot

```
*** Test Cases ***
Checkout Diner Set
    Create Session   toy_store   http://localhost:8000
    ${productList}=   Get Request   toy_store   /api/v1/product
    Status Should Be  200   ${productList}
```

Run
Test Case Files

```
$ robot checkout-success-plain.robot
```

Test Cases in Test Case Files

Create Headers(Task)

checkout-success.robot

```
*** Test Cases ***
Checkout Diner Set
    Create Session   toy_store   http://localhost:8000

    &{accept}=   Create Dictionary   Accept=text/xml

    ${productList}=   Get Request   toy_store   /api/v1/product
    headers=&{accept}
    Status Should Be  200   ${productList}
```

Run
Test Case Files

```
$ robot checkout-success-plain.robot
```

Test Cases in Test Case Files

Assert Product Total(Task)

checkout-success.robot

```
*** Test Cases ***
Checkout Diner Set
    ...
    ${productList}=   Get Request   toy_store   /api/v1/product
headers=&{accept}
    Status Should Be  200   ${productList}
    ${text}=    Decode Bytes To String    ${productList.content}    UTF-8

    ${xml}    Parse Xml   ${text}
    ${total}=    Get Element    ${xml}    total
    Should Be Equal As Integers    ${total.text}    ${2}
    @{products}=    Get Element    ${xml}    products
    Length Should Be    ${products}    2
```

Variables in Robotframework

Dictionary

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```
response =
   <product-list>
     <total>2</total>          Get Element    ${xml}    total
     <products>                Get Element    ${xml}    product
       <product>
        <id>1</id>
        <product_name>Balance Training Bicycle</product_name>
        <product_price>119.95</product_price>
        <product_image>/Balance_Training_Bicycle.png</product_image>
      </product>
      <product>
        <id>2</id>
        <product_name>43 Piece dinner Set</product_name>
        <product_price>12.95</product_price>
        <product_image>/43_Piece_dinner_Set.png</product_image>
      </product>
    </products>
  </product-list>
```

Run
Test Case Files

```
$ robot checkout-success-plain.robot
```

Test Cases in Test Case Files

Get Product Detail

Assert Product Detail(Task)

```
Request:
Get Product Detail    /api/v1/product/2
Get Product Detail    product id = 2

Response:
Assert                product_id = 2
Assert                product_name = 43 Piece dinner Set
```

Test Cases in Test Case Files

Get Product Detail

Assert Product Detail(Task)

checkout-success.robot

```
*** Test Cases ***
Checkout Diner Set
    ...
    ${productDetail}=    Get Request    toy_store    /api/v1/product/2
    headers=&{accept}
    Request Should Be Successful    ${productDetail}
    ${xml}    Parse Xml    ${productDetail.content}
    ${name}=    Get Element Text    ${xml}    product_name
    Should Be Equal    ${name}    43 Piece dinner Set
```

Test Cases in Test Case Files

Order Dinner Set

Assert Order Status(Task)

```
Request:
Order Dinner Set      list of [product id = 2, quantity = 1]
Order Dinner Set      shipping address
Order Dinner Set      headers = Accept=text/xml
                                Content-Type=text/xml

Response:
Assert                total price = 14.95
```

RequestsLibrary
Get Request API

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Post Request	*alias*, *uri*, *data=None*, *json=None*, *params=None*, *headers=None*, *files=None*, *allow_redirects=None*, *timeout=None*

Send a POST request on the session object found using the given *alias*

`alias` that will be used to identify the Session object in the cache

`uri` to send the POST request to

`data` a dictionary of key-value pairs that will be urlencoded and sent as POST data or binary data that is sent as the raw body content or passed as such for multipart form data if `files` is also defined or file descriptor retrieved by Get File For Streaming Upload

`json` a value that will be json encoded and sent as POST data if files or data is not specified

`params` url parameters to append to the uri

`headers` a dictionary of headers to use with the request

`files` a dictionary of file names containing file data to POST to the server

`allow_redirects` Boolean. Set to True if POST/PUT/DELETE redirect following is allowed.

`timeout` connection timeout

Test Cases in Test Case Files

Order Dinner Set

Assert Order Status

checkout-success-plain.robot

```
*** Test Cases ***
Checkout Diner Set
    ...
    ${order}=    Encode String To Bytes    <orders><cart><order><product_id>${id}
    </product_id><quantity>2</quantity></order></cart><shipping_method>Kerry</
    shipping_method><shipping_address>405/37 ถ.มหิดล</
    shipping_address><shipping_sub_district>ท่าศาลา</
    shipping_sub_district><shipping_district>เมือง</
    shipping_district><shipping_province>เชียงใหม่</
    shipping_province><shipping_zip_code>50000</
    shipping_zip_code><recipient_name>ณัฐญา ชุติบุตร</
    recipient_name><recipient_phone_number>0970809292</recipient_phone_number></
    orders>    UTF-8

    &{post_headers}=    Create Dictionary    Accept=text/xml
    Content-Type=text/xml

    ${orderStatus}=    Post Request    toy_store    /api/v1/order
    data=${order}    headers=&{post_headers}
```

Test Cases in Test Case Files

Order Dinner Set

Assert Order Status(Task)

checkout-sucess.robot

```
*** Test Cases ***
Checkout Diner Set
    ...
    ${orderStatus}=    Post Request    toy_store    /api/v1/order
    data=${order}    headers=&{post_headers}

    Status Should Be    200    ${orderStatus}
    ${xml}    Parse Xml    ${orderStatus.content}
    ${total_price}=      Get Element Text    ${xml}    total_price
    Should Be Equal    ${total_price}    14.95
    ${order_id}=      Get Element Text    ${xml}    order_id
```

Order Status
Response

```
<order>
  <order_id>8004359122</order_id>
  <total_price>14.95</total_price>
</order>
```

Run
Test Case Files

```
$ robot checkout-success-plain.robot
```

Test Cases in Test Case Files

Confirm Payment

Assert Confirm Payment Status(Task)

```
Request:
Confirm Payment        /api/v1/confirmPayment
Confirm Payment        order id = 8004359122
Confirm Payment        payment method
Confirm Payment        total price = 14.95
Confirm Payment        headers = Accept=application/json
                                 Content-Type=application/json

Response:
Assert                 notification message =
                       วันเวลาที่ชำระเงิน 1/3/2020 13:30:00 หมายเลขคำสั่งซื้อ
                       8004359122 คุณสามารถติดตามสินค้าผ่านช่องทาง Kerry
                       หมายเลข 1785261900
```

Test Cases in Test Case Files

Confirm Payment

Assert Confirm Payment Status(Task)

checkout-success.robot

```
*** Test Cases ***
Checkout Diner Set
    ...
    ${confirmPayment}=    Encode String To Bytes    <confirm-
    payment><order_id>${order_id}</order_id><payment_type>credit</
    payment_type><type>visa</type><card_number>4719700591590995</
    card_number><cvv>752</cvv><expired_month>7</
    expired_month><expired_year>20</expired_year><card_name>Karnwat
    Wongudom</card_name><total_price>${total_price}</total_price></confirm-
    payment>    UTF-8
```

Test Cases in Test Case Files

Confirm Payment

Assert Confirm Payment Status(Task)

checkout-success.robot

```
*** Test Cases ***
Checkout Diner Set
    ...
    ${confirmPaymentStatus}=    Post Request    toy_store    /api/v1/
    confirmPayment    data=${confirmPayment}    headers=&{post_headers}
    Request Should Be Successful    ${confirmPaymentStatus}
    ${xml}    Parse Xml    ${confirmPaymentStatus.content}
    ${message}=    Get Element Text    ${xml}
    Should Be Equal As Strings    ${message}    วันเวลาที่ชำระเงิน 1/3/2020
    13:30:00 หมายเลขคำสั่งซื้อ 8004359122 คุณสามารถติดตามสินค้าผ่านช่องทาง Kerry
    หมายเลข 1785261900
```

Run
Test Case Files

```
$ robot checkout-success-plain.robot
```

Test Cases in Test Case Files

Create Checkout Diner Set(Test case)

Delete Session(Task)

checkout-success.robot

```
*** Test Cases ***
Checkout Diner Set
    ...
    Delete All Session
```

Run
Test Case Files

```
$ robot checkout-success-plain.robot
```

HTTP RequestsLibrary(Python)

*** Variables ***

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Test Cases in Test Case Files

Hard Code!

checkout-success-variables.robot

```
*** Test Cases ***
Checkout Diner Set
    Create Session    toy_store    http://localhost:8000
    &{accept}=    Create Dictionary    Accept=text/xnk
    ${productList}=    Get Request    toy_store    /api/v1/product
    headers=&{accept}
    Status Should Be  200            ${productList}
```

Test Cases in Test Case Files

Hard Code!

checkout-success-variables.robot

```
*** Variables ***
${toy_store}
${URL}          http://localhost:8000
&{ACCEPT}       Accept=text/xml
${OK}           200

*** Test Cases ***
Checkout Diner Set
    Create Session    ${toy_store}    ${URL}
    ${productList}=    Get Request    toy_store    /api/v1/product
    headers=&{ACCEPT}
     Status Should Be   ${OK}              ${productList}
```

Run
Test Case Files

```
$ robot checkout-success-variables.robot
```

Test Cases in Test Case Files

Hard Code!

checkout-success-variables.robot

```
*** Test Cases ***
Checkout Diner Set
    ...
    Encode String To Bytes    <orders><cart><order><product_id>${id}</
    product_id><quantity>2</quantity></order></cart><shipping_method>Kerry</
    shipping_method><shipping_address>405/37 ถ.มหิดล</
    shipping_address><shipping_sub_district>ท่าศาลา</
    shipping_sub_district><shipping_district>เมือง</
    shipping_district><shipping_province>เชียงใหม่</
    shipping_province><shipping_zip_code>50000</
    shipping_zip_code><recipient_name>ณัฐญา ชุติบุตร</
    recipient_name><recipient_phone_number>0970809292</
    recipient_phone_number></orders>    UTF-8

    &{post_headers}=    Create Dictionary    Accept=text/xml
    Content-Type=text/xml
```

Test Cases in Test Case Files

Hard Code!

checkout-success-variables.robot

```
*** Variables ***
&{CONTENT_TYPE}      Content-Type=application/json
&{ACCEPT}            Accept=application/json
&{POST_HEADERS}      &{ACCEPT}    &{CONTENT_TYPE}
${ORDER_TEMPLATE}    <orders><cart><order><product_id>${id}</
product_id><quantity>2</quantity></order></cart><shipping_method>Kerry</
shipping_method><shipping_address>405/37 ถ.มหิดล</
shipping_address><shipping_sub_district>ท่าศาลา</
shipping_sub_district><shipping_district>เมือง</
shipping_district><shipping_province>เชียงใหม่</
shipping_province><shipping_zip_code>50000</
shipping_zip_code><recipient_name>ณัฐญา ชุติบุตร</
recipient_name><recipient_phone_number>0970809292</
recipient_phone_number></orders>
*** Test Cases ***
Checkout Diner Set
    ...
    &{post_headers}=    Create Dictionary    Accept=text/xml
    Content-Type=text/xml
    ${orderStatus}=     Post Request    ${toy_store}    /api/v1/order
    json=${order}    headers=&{POST_HEADERS}
```

Run
Test Case Files

```
$ robot checkout-success-variables.robot
```

Test Cases in Test Case Files

Hard Code!

checkout-success-variables.robot

```
*** Test Cases ***
Checkout Diner Set
    ...
    ${confirmPayment}=    Encode String To Bytes    <confirm-
    payment><order_id>${order_id}</
    order_id><payment_type>credit</payment_type><type>visa</
    type><card_number>4719700591590995</card_number><cvv>752</
    cvv><expired_month>7</expired_month><expired_year>20</
    expired_year><card_name>Karnwat Wongudom</
    card_name><total_price>${total_price}</total_price></confirm-
    payment>
```

Test Cases in Test Case Files

Hard Code!

checkout-success-variables.robot

```
*** Variables ***
${CONFIRM_PAYMENT_TEMPLATE}    <confirm-payment><order_id>$
{order_id}</order_id><payment_type>credit</payment_type><type>visa</
type><card_number>4719700591590995</card_number><cvv>752</
cvv><expired_month>7</expired_month><expired_year>20</
expired_year><card_name>Karnwat Wongudom</card_name><total_price>$
{total_price}</total_price></confirm-payment>

*** Test Cases ***
Checkout Diner Set
    ...
    ${confirmPayment}=    To Json    ${CONFIRM_PAYMENT_TEMPLATE}
```

Run
Test Case Files

```
$ robot checkout-success-variables.robot
```

Run with Options

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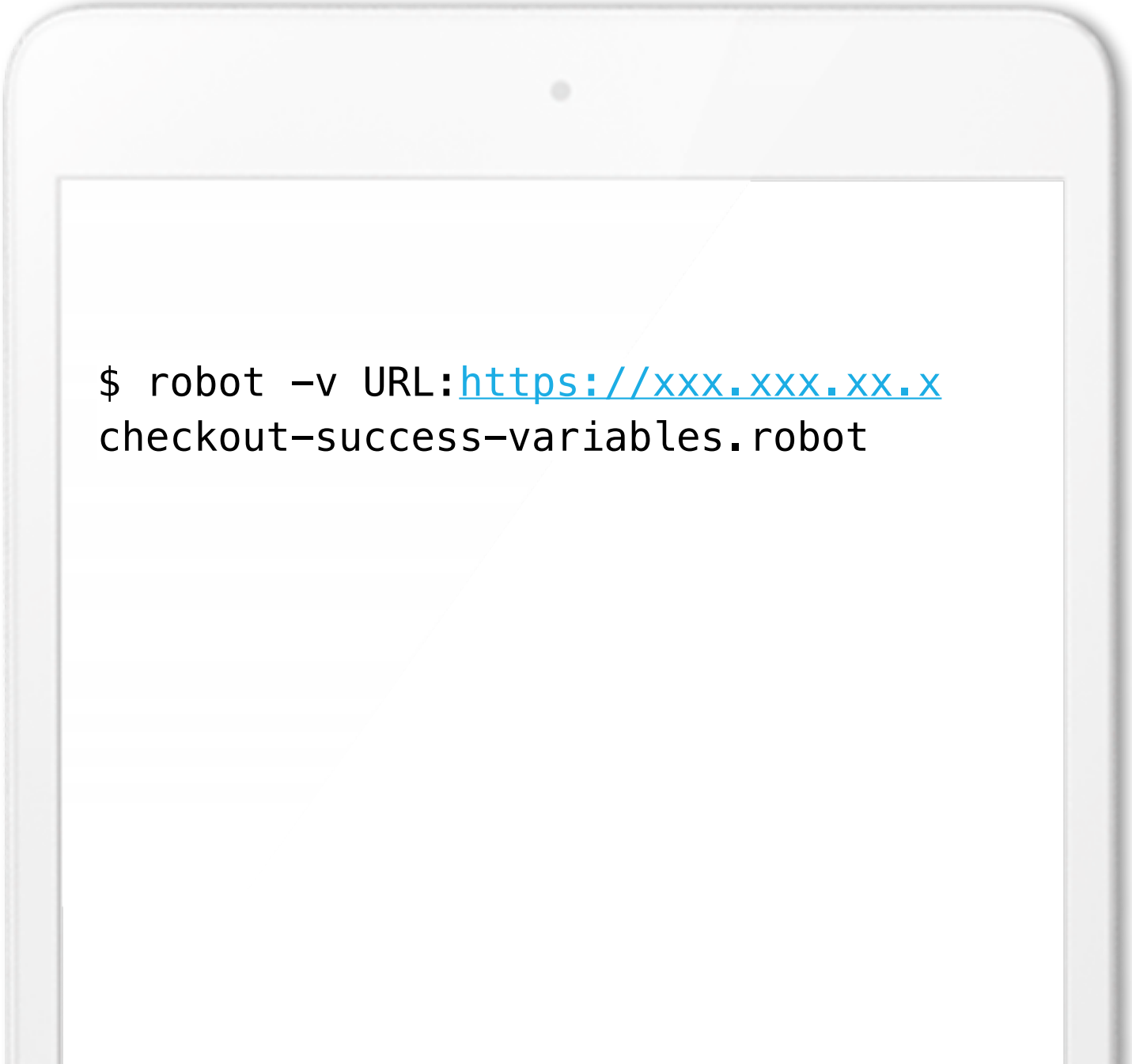

Test Cases in Test Case Files

Hard Code!

checkout-success-variables.robot

```
*** Settings ***
Library           RequestsLibrary
Test Setup        Create Session    ${toy_store}      ${URL}
Test Teardown     Delete All Sessions

*** Test Cases ***
Checkout Diner Set
    Create Session    ${toy_store}      ${URL}
    ...
    Delete All Sessions
```

Execution Flow in Test Case Files

Robot Framework data is defined in different sections.

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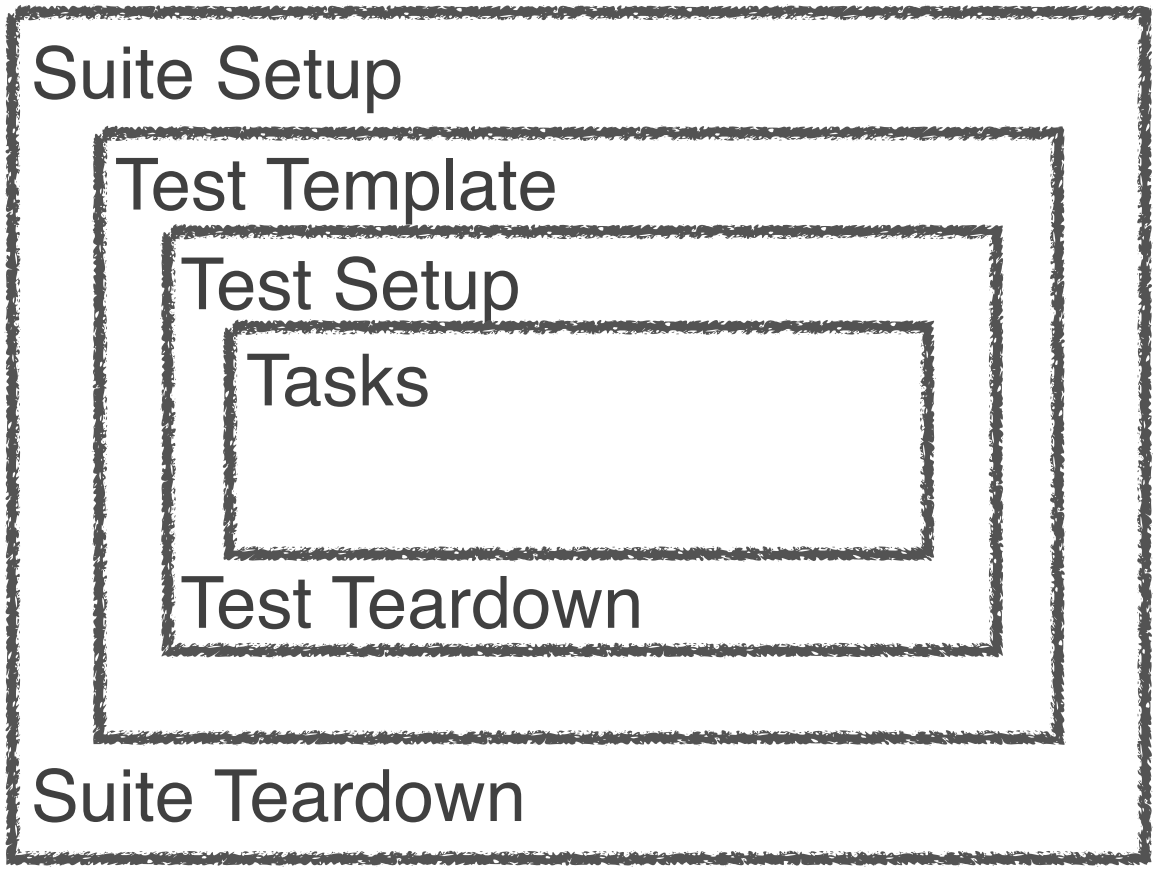

HTTP RequestsLibrary(Python)

*** Keywords ***

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Test Cases in Test Case Files

checkout-success-keywords.robot

```
*** Test Cases ***
Checkout Diner Set
    ${productList}=   Get Request    ${toy_store}    /api/v1/product
    headers=&{ACCEPT}
     Status Should Be  200            ${productList}
    ${text}=    Decode Bytes To String    ${productList.content}
    UTF-8
     ${xml}    Parse Xml   ${text}
     ${total}=    Get Element    ${xml}    total
     Should Be Equal As Integers    ${total.text}     ${2}

    ...
```

Test Cases in Test Case Files

create Get Product List keyword

checkout-success-keywords.robot

```
*** Test Cases ***
Checkout Diner Set
    Get Product List
    ...
*** Keywords ***
Get Product List
    ${productList}=   Get Request    ${toy_store}    /api/v1/
    product    headers=&{ACCEPT}
    Status Should Be  200            ${productList}
    ${text}=    Decode Bytes To String    ${productList.content}
    UTF-8
    ${xml}    Parse Xml   ${text}
    ${total}=    Get Element    ${xml}    total
    Should Be Equal As Integers    ${total.text}    ${2}
```

Run
Test Case Files

```
$ robot checkout-success-keywords.robot
```

Test Cases in Test Case Files

checkout-success-keywords.robot

```
*** Test Cases ***
Checkout Diner Set
    ...
    ${productDetail}=    Get Request    ${toy_store}    /api/v1/
    product/2    headers=&{ACCEPT}
    Request Should Be Successful    ${productDetail}
    ${xml}    Parse Xml    ${productDetail.content}
    ${name}=    Get Element Text    ${xml}    product_name
    Should Be Equal    ${name}    43 Piece dinner Set
    ...
```

Test Cases in Test Case Files

checkout-success-keywords.robot

```
*** Test Cases ***
Checkout Diner Set
    Get Product List
    Get Product Detail
    ...

*** Keywords ***
...
Get Product Detail
    ${productDetail}=    Get Request    ${toy_store}    /api/v1/
    product/2    headers=&{ACCEPT}
    Request Should Be Successful    ${productDetail}
    ${xml}    Parse Xml    ${productDetail.content}
    ${name}=    Get Element Text    ${xml}    product_name
    Should Be Equal    ${name}    43 Piece dinner Set
```

Run
Test Case Files

```
$ robot checkout-success-keywords.robot
```

Test Cases in Test Case Files

```
*** Test Cases ***
Checkout Diner Set
    Get Product List
    Get Product Detail
    Order Diner Set
    Confirm Payment

*** Keywords ***
...
```

Run
Test Case Files

```
$ robot checkout-success-keywords.robot
```

Test Cases in Test Case Files

Get Product Detail

Assert Product Detail(Task)

```
Request:
Get Product Detail    product id = 2

Response:
Assert                product id = 2
Assert                product name = 43 Piece dinner Set
```

Test Cases in Test Case Files

Hard Code!

checkout-success-keywords.robot

```
*** Test Cases ***
Checkout Diner Set
    Get Product List
    Get Product Detail
    ...

*** Keywords ***
...
Get Product Detail
    ${productDetail}=    Get Request    ${toy_store}    /api/v1/
    product/2    headers=&{ACCEPT}
    Request Should Be Successful    ${productDetail}
    ${xml}    Parse Xml    ${productDetail.content}
    ${name}=    Get Element Text    ${xml}    product_name
    Should Be Equal    ${name}    43 Piece dinner Set
```

Test Cases in Test Case Files

Hard Code!

checkout-success-keywords.robot

```
*** Test Cases ***
Checkout Diner Set
    Get Product List
    Get Product Detail    2    43 Piece dinner Set
    ...

*** Keywords ***
...
Get Product Detail
    [Arguments]    ${product_id}    ${product_name}
    ${productDetail}=    Get Request    ${toy_store}    /api/v1/
    product/${product_id}    headers=&{ACCEPT}
    Request Should Be Successful    ${productDetail}
    ${xml}    Parse Xml    ${productDetail.content}
    ${name}=    Get Element Text    ${xml}    product_name
    Should Be Equal    ${name}    ${product_name}
```

Run
Test Case Files

```
$ robot checkout-success-keywords.robot
```

Test Cases in Test Case Files

checkout-success-keywords.robot

Order Dinner Set

Assert Order Status(Task)

```
Request:
Order Dinner Set      list of [product id = 2, quantity = 1]
Order Dinner Set      shipping address
Order Dinner Set      headers = Accept=application/json
                                Content-Type=application/json

Response:
Assert                total price = 14.95
```

Test Cases in Test Case Files

Hard Code!

checkout-success-keywords.robot

```
*** Test Cases ***
Checkout Diner Set
    Get Product List
    Get Product Detail      2    43 Piece dinner Set
    Order Diner Set    2    1    14.95
    Confirm Payment      14.95    วันเวลาที่ชำระเงิน 1/3/2020
13:30:00 หมายเลขคำสั่งซื้อ 8004359122 คุณสามารถติดตามสินค้าผ่านช่องทาง
Kerry หมายเลข 1785261900


*** Keywords ***
...
```

Test Cases in Test Case Files

Hard Code!

checkout-success-keywords.robot

```
*** Variables ***
${ORDER_TEMPLATE}
...               <orders>
...                 <cart>
...                   <order>
...                     <product_id>\${product_id}</product_id>
...                     <quantity>\${quantity}</quantity>
...                   </order>
...                 </cart>
...                 <shipping_method>Kerry</shipping_method>
...                 <shipping_address>405/37 ถ.มหิดล</shipping_address>
...                 <shipping_sub_district>ท่าศาลา</
shipping_sub_district>
...                 <shipping_district>เมือง</shipping_district>
...                 <shipping_province>เชียงใหม่</shipping_province>
...                 <shipping_zip_code>50000</shipping_zip_code>
...                 <recipient_name>ณัฐญา ชุติบุตร</recipient_name>
...                 <recipient_phone_number>0970809292</
recipient_phone_number>
...               </orders>
```

Test Cases in Test Case Files

Hard Code!

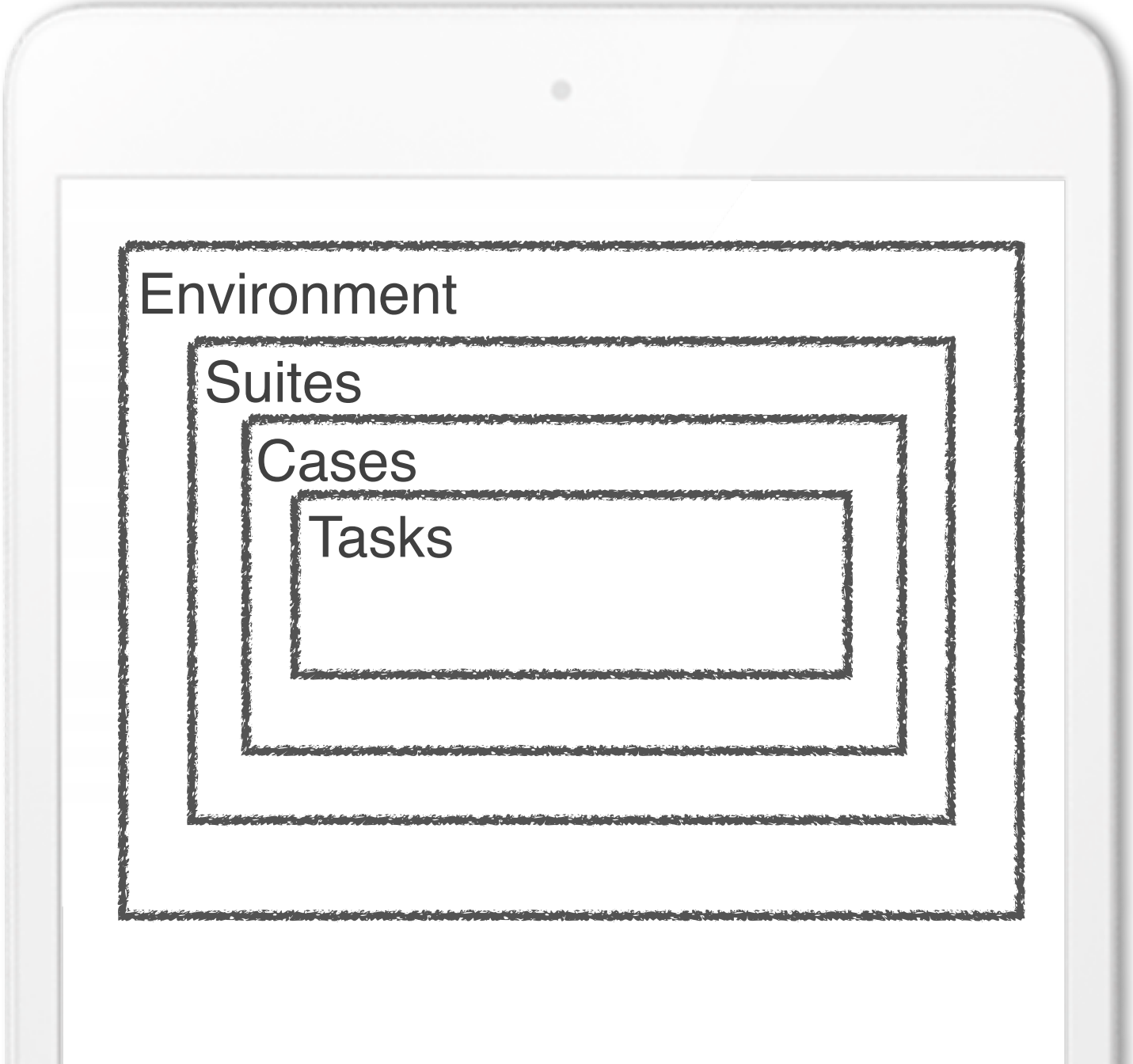
checkout-success-keywords.robot

```
*** Keywords ***
Order Diner Set
    [Arguments]    ${product_id}    ${quantity}    ${total_price}
    ${order_message}=    Replace Variables    ${ORDER_TEMPLATE}
    ${order}=    Encode String To Bytes    ${order_message}    UTF-8
    ${orderStatus}=    Post Request    ${toy_store}    /api/v1/order
    data=${order}    headers=&{POST_HEADERS}
    Status Should Be    200    ${orderStatus}
    ${xml}    Parse Xml    ${orderStatus.content}
    ${actual_total_price}=    Get Element Text    ${xml}    total_price
    Should Be Equal    ${total_price}    ${actual_total_price}
    ${order_id}=    Get Element Text    ${xml}    order_id
    Set Test Variable    ${order_id}    ${order_id}
```

Scope in Test Case Files

Robot Framework data is defined in different sections.

lean more



Run
Test Case Files

```
$ robot checkout-success-keywords.robot
```

Test Cases in Test Case Files

Confirm Payment

Assert Confirm Payment Status(Task)

```
Request:
Confirm Payment        order id = 8004359122
Confirm Payment        payment method
Confirm Payment        total price = 14.95
Confirm Payment        headers = Accept=application/json
                                 Content-Type=application/json

Response:
Assert                 notification message =
                       วันเวลาที่ชำระเงิน 1/3/2020 13:30:00 หมายเลขคำสั่งซื้อ
                       8004359122 คุณสามารถติดตามสินค้าผ่านช่องทาง Kerry
                       หมายเลข 1785261900
```

Test Cases in Test Case Files

Hard Code!

checkout-success-keywords.robot

```
*** Test Cases ***
Checkout Diner Set
    Get Product List
    Get Product Detail    2    43 Piece dinner Set
    Order Diner Set    2    1    14.95
    Confirm Payment    14.95    วันเวลาที่ชำระเงิน 1/3/2020
13:30:00 หมายเลขคำสั่งซื้อ 8004359122 คุณสามารถติดตามสินค้าผ่านช่องทาง
Kerry หมายเลข 1785261900

*** Keywords ***
...
```

Test Cases in Test Case Files

Hard Code!

checkout-success-keywords.robot

```
*** Variables ***
${CONFIRM_PAYMENT_TEMPLATE}
...                 <confirm-payment>
...                   <order_id>\${order_id}</order_id>
...                   <payment_type>credit</payment_type>
...                   <type>visa</type>
...                   <card_number>4719700591590995</card_number>
...                   <cvv>752</cvv>
...                   <expired_month>7</expired_month>
...                   <expired_year>20</expired_year>
...                   <card_name>Karnwat Wongudom</card_name>
...                   <total_price>\${total_price}</total_price>
...                 </confirm-payment>
```

Test Cases in Test Case Files

Hard Code!

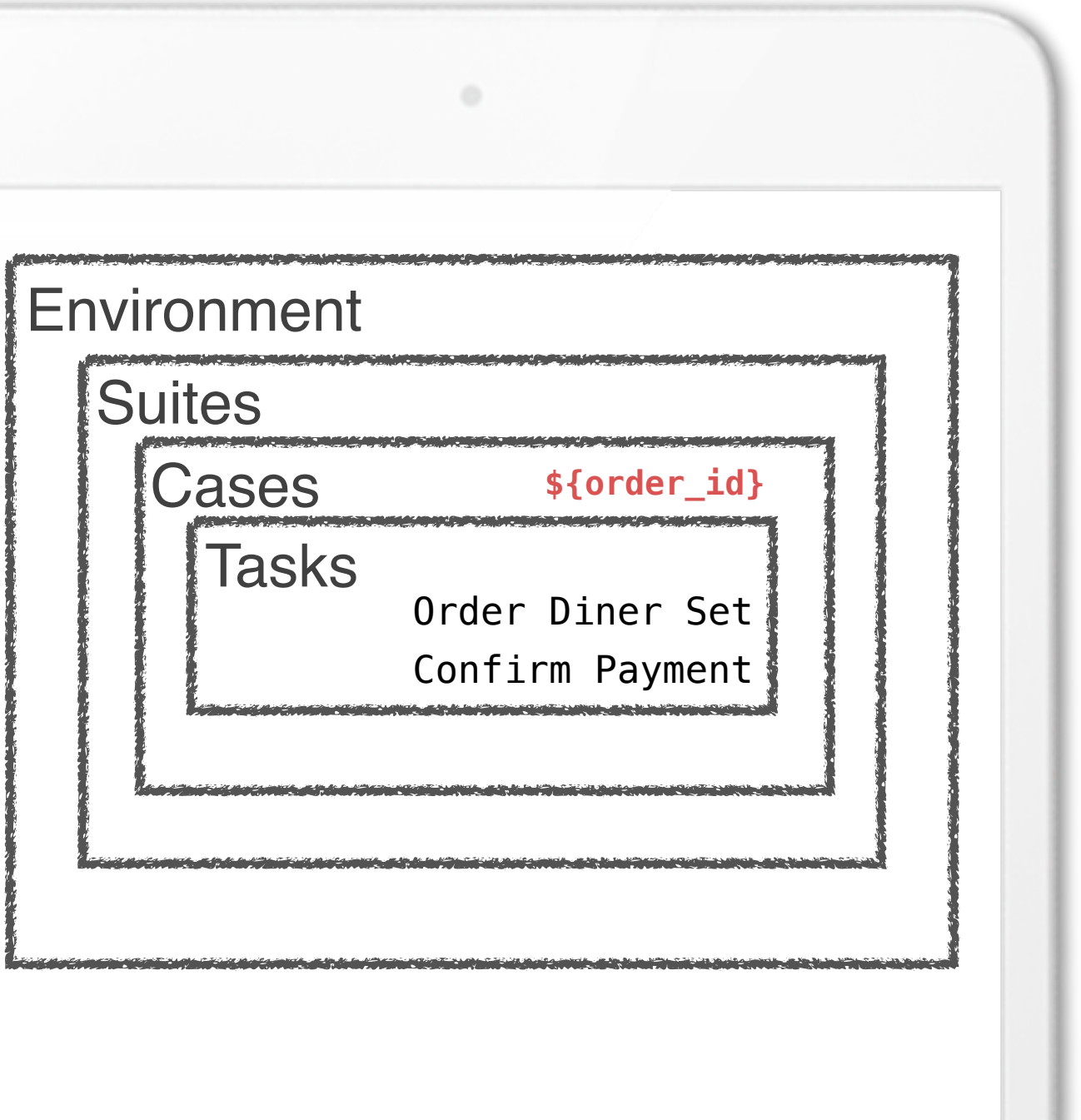
checkout-success-keywords.robot

```
*** Keywords ***
Confirm Payment
    [Arguments]    ${total_price}    ${notify_message}
    ${payment_message}=    Replace Variables    ${CONFIRM_PAYMENT_TEMPLATE}
    ${confirmPayment}=    Encode String To Bytes    ${payment_message}
    UTF-8
    ${confirmPaymentStatus}=    Post Request    ${toy_store}    /api/v1/
    confirmPayment    data=${confirmPayment}    headers=&{POST_HEADERS}
    Request Should Be Successful    ${confirmPaymentStatus}
    ${xml}    Parse Xml    ${confirmPaymentStatus.content}
    ${message}=    Get Element Text    ${xml}
    Should Be Equal As Strings    ${message}    ${notify_message}
```

Scope in Test Case Files

Robot Framework data is defined in different sections.

lean more



Run
Test Case Files

```
$ robot checkout-success-keywords.robot
```

HTTP RequestsLibrary(Python)

*** Template ***

lean more

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Run
Test Case Files

```
$ robot checkout-success-template.robot
```

Test Cases in Test Case Files

Hard Code!

checkout-success-template.robot

```
*** Test Cases ***
Checkout Diner Set
    Get Product List
    Get Product Detail    2    43 Piece dinner Set
    Order Diner Set    2    1    14.95
    Confirm Payment    14.95    วันเวลาที่ชำระเงิน 1/3/2020 13:30:00 หมายเลขคำสั่งซื้อ 8004359122 คุณสามารถติดตามสินค้าผ่านช่องทาง Kerry หมายเลข 1785261900

Checkout Bicycle
    Get Product List
    Get Product Detail    1    Balance Training Bicycle
    Order Diner Set    1    2    241.90
    Confirm Payment    241.90    วันเวลาที่ชำระเงิน 1/3/2020 13:30:00 หมายเลขคำสั่งซื้อ 8004359105 คุณสามารถติดตามสินค้าผ่านช่องทาง Kerry หมายเลข 1785261901
```

Test Cases in Test Case Files

Hard Code!

checkout-success-template.robot

```
*** Test Cases ***
Checkout Diner Set
    Checkout Product    2    43 Piece dinner Set    1    14.95    วันเวลาที่
ชำระเงิน 1/3/2020 13:30:00 หมายเลขคำสั่งซื้อ 8004359122 คุณสามารถติดตามสินค้าผ่าน
ช่องทาง Kerry หมายเลข 1785261900

*** Keywords ***
Checkout Product
    [Arguments]    ${product_id}    ${product_name}    ${quantity}    $
{total_price}    ${notify_message}
    Get Product List
    Find Product by Name    ${product_name}
    Get Product Detail    ${product_name}
    Order Diner Set    ${quantity}    ${total_price}
    Confirm Payment    ${total_price}    ${notify_message}
```

Run
Test Case Files

```
$ robot checkout-success-template.robot
```

Test Cases in Test Case Files

Hard Code!

checkout-success-template.robot

```
*** Test Cases ***
Checkout Bicycle
    Checkout Product    1    Balance Training Bicycle    2    241.90 วัน
    เวลาที่ชำระเงิน 1/3/2020 13:30:00 หมายเลขคำสั่งซื้อ 8004359105 คุณสามารถติดตาม
    สินค้าผ่านช่องทาง Kerry หมายเลข 1785261901

*** Keywords ***
    ...
```

Run
Test Case Files

```
$ robot checkout-success-template.robot
```

Test Cases in Test Case Files

Hard Code!

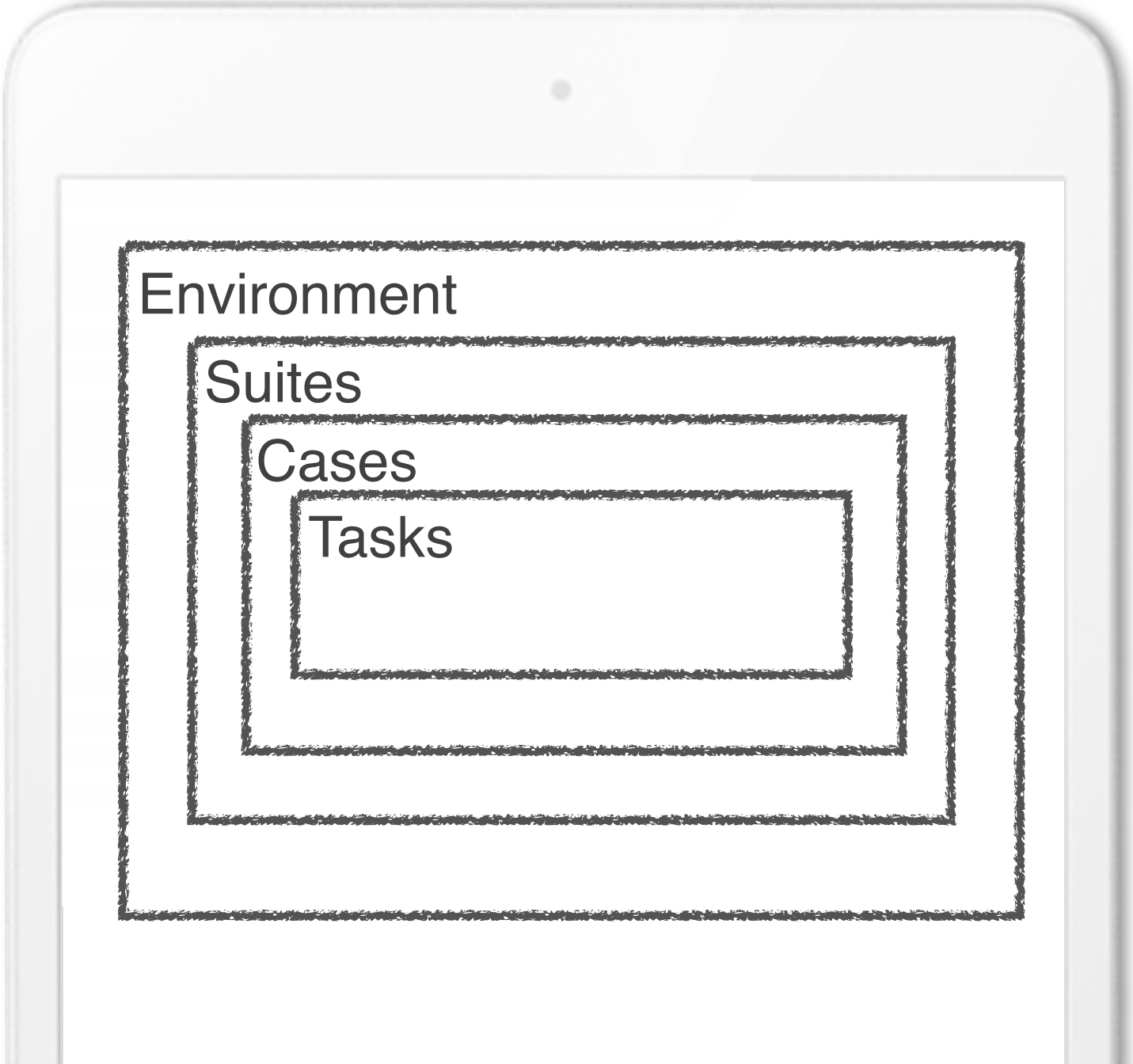
checkout-success-template.robot

```
*** Settings ***
Library     RequestsLibrary
Suite Setup     Create Session     ${toy_store}      ${URL}
Suite Teardown     Delete All Sessions
Test Template     Checkout Product

*** Test Cases ***
Checkout Diner Set     2     43 Piece dinner Set     1     14.95
วันเวลาที่ชำระเงิน 1/3/2020 13:30:00 หมายเลขคำสั่งซื้อ 8004359122 คุณ
สามารถติดตามสินค้าผ่านช่องทาง Kerry หมายเลข 1785261900

Checkout Bicycle     1     Balance Training Bicycle     2     241.90
วันเวลาที่ชำระเงิน 1/3/2020 13:30:00 หมายเลขคำสั่งซื้อ 8004359105 คุณ
สามารถติดตามสินค้าผ่านช่องทาง Kerry หมายเลข 1785261901
```

Scope in Test Case Files

Robot Framework data is defined in different sections.

lean more



Run
Test Case Files

```
$ robot checkout-success-template.robot
```

HTTP RequestsLibrary(Python)

*** Resource ***

lean more

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Run
Test Case Files

```
$ robot checkout-success-resources.robot
```

Test Cases in Test Case Files

Hard Code!

checkout-success-resources.robot

```
*** Variables ***
${toy_store}
${URL}      http://localhost:8000
&{CONTENT_TYPE}         Content-Type=application/json
&{ACCEPT}               Accept=application/json
&{POST_HEADERS}         &{ACCEPT}    &{CONTENT_TYPE}
...

*** Test Cases ***
Checkout Diner Set ...

*** Keywords ***
Checkout Product
    [Arguments]    ${product_id}    ${product_name}    ${quantity}    $
{total_price}    ${notify_message}
    Get Product List
    Get Product Detail    ${product_id}     ${product_name}
    Order Diner Set    ${product_id}     ${quantity}    ${total_price}
    Confirm Payment     ${total_price}    ${notify_message}
...
```

Test Cases in Test Case Files

move

*** Variables ***

*** Keywords ***

to resources.robot

checkout-success-resources.robot

```
*** Settings ***
Library     RequestsLibrary
Library     Collections
Suite Setup     Create Session     ${toy_store}      ${URL}
Suite Teardown     Delete All Sessions
Test Template     Checkout Product
Resource     ./resources.robot

*** Test Cases ***
Checkout Diner Set     2     43 Piece dinner Set     1     14.95
วันเวลาที่ชำระเงิน 1/3/2020 13:30:00 หมายเลขคำสั่งซื้อ 8004359122 คุณ
สามารถติดตามสินค้าผ่านช่องทาง Kerry หมายเลข 1785261900

Checkout Bicycle     1     Balance Training Bicycle     2     241.90
วันเวลาที่ชำระเงิน 1/3/2020 13:30:00 หมายเลขคำสั่งซื้อ 8004359105 คุณ
สามารถติดตามสินค้าผ่านช่องทาง Kerry หมายเลข 1785261901
```

Test Cases in Test Case Files

Hard Code!

resources.robot

```
*** Variables ***
${toy_store}
${URL}      http://localhost:8000
&{CONTENT_TYPE}         Content-Type=application/json
&{ACCEPT}               Accept=application/json
&{POST_HEADERS}         &{ACCEPT}    &{CONTENT_TYPE}
...

*** Keywords ***
Checkout Product
    [Arguments]    ${product_id}    ${product_name}    ${quantity}    ${total_price}    ${notify_message}
    Get Product List
    Get Product Detail    ${product_id}     ${product_name}
    Order Diner Set    ${product_id}     ${quantity}    ${total_price}
    Confirm Payment     ${total_price}    ${notify_message}
...
```

Run
Test Case Files

```
$ robot checkout-success-resources.robot
```

thanks

30 slides