HW#07. API Testing

KCPM – 20KTPM01

GROUP 08

MỤC LỤC

1. Employee

1.1 Feature 1

PUT {{BASE_URL}}/api/v1/employee/:id

Domain Testing Technique

Test case 1:

```
{
    "firstName" : "Edit",
    "lastName" : "User",
    "dob": "2000-12-12",
    "licenseNumber": "123123"
}
```

Expected: Status code is 200

Test case 2:

```
{
    "firstName" : "",
    "lastName" : "User",
    "dob": "2000-12-12",
    "licenseNumber": "123123"
}
```

Expected: Status code is 400, missing required field

Test case 3:

```
{
    "firstName" : "123",
    "lastName" : "User",
    "dob": "2000-12-12",
    "licenseNumber": "123123"
}
```

Expected: Status code is 400, first name should not be number

Test case 4:

```
{
    "firstName"  :  "Edit",

    "lastName"  :  "",

    "dob": "2000-12-12",

    "licenseNumber": "123123"
}
```
Expected: Status code is 400, missing required field

Test case 5:
```
{
    "firstName"  :  "Edit",

    "lastName"  :  "123",

    "dob": "2000-12-12",

    "licenseNumber": "123123"
}
```
Expected: Status code is 400, last name should not be number

Test case 6:
```
{
    "firstName"  :  "Edit",

    "lastName"  :  "User",

    "dob": "1400-12-12",

    "licenseNumber": "123123"
}
```
Expected: Status code is 400, dob should not be far in the past

Test case 7:
```
{
    "firstName"  :  "Edit",

    "lastName"  :  "User",

    "dob": "2000-13-13",
```

    "licenseNumber": "123123"

}

Expected: Status code is 400, invalid dob

Test case 8:

{

    "firstName" : "Edit",

    "lastName" : "User",

    "dob": "2000-02-30",

    "licenseNumber": "123123"

}

Expected: Status code is 400, invalid dob

Test case 9:

{

    "firstName" : "Edit",

    "lastName" : "User",

    "dob": "2001-02-29",

    "licenseNumber": "123123"

}

Expected: Status code is 400, invalid dob

Test case 10:

{

    "firstName" : "Edit",

    "lastName" : "User",

    "dob": "2200-02-29",

    "licenseNumber": "123123"

}

Expected: Status code is 400, dob should not be far in the future

Test case 11:

```
{
    "firstName"  :  "Edit",
    "lastName"  :  "User",
    "dob": "2000-12-12",
    "licenseNumber": "abc"
}
```

Expected: Status code is 400, licenseNumber should not be string

Result:

1.2 Feature 2

POST {{BASE_URL}}/api/v1/employee/:id/contact-detail

Test case 1:

```
{
    "addressStreet1": "No 35 Park street ,Devmore canada",
    "state": "Western",
```

```
    "zip": "15224",

    "mobile": "1204415552",

    "workEmail": "work@yahoo.com",

    "otherEmail": "ninalewis@yahoo.com"

}
```

Expected: Status code 200

Test case 2:

```
{


    "addressStreet1": "No 35 Park street ,Devmore canada",

    "state": "California!",

    "zip": "15224",

    "mobile": "1204415552",

    "workEmail": "work@yahoo.com",

    "otherEmail": "ninalewis@yahoo.com"

}
```

Expected: Status code 400, invalid state

Test case 3:

```
{
    "addressStreet1": "No 35 Park street ,Devmore canada",

    "state": "Western",

    "zip": "ABC123",

    "mobile": "1204415552",

    "workEmail": "work@yahoo.com",

    "otherEmail": "ninalewis@yahoo.com"

}
```

Expected: Status code 400, invalid zip

Test case 4:

```
{

    "addressStreet1": "No 35 Park street ,Devmore canada",

    "state": "Western",

    "zip": "15224",

    "mobile": "123-ABCD",

    "workEmail": "work@yahoo.com",

    "otherEmail": "ninalewis@yahoo.com"

}
```

Expected: Status code 400, invalid mobile

Test case 5:

```
{


    "addressStreet1": "No 35 Park street ,Devmore canada",

    "state": "Western",

    "zip": "15224",

    "mobile": "1204415552",

    "workEmail": "work@.com",

    "otherEmail": "ninalewis@yahoo.com"

}
```

Expected: Status code 400, invalid workEmail

Test case 6:

```
{


    "addressStreet1": "No 35 Park street ,Devmore canada",

    "state": "Western",

    "zip": "15224",

    "mobile": "1204415552",

    "workEmail": "$@sabc@gmail.com",

    "otherEmail": "ninalewis@yahoo.com"
```

}

Expected: Status code 400, invalid workEmail

Test case 7:

```
{

   "addressStreet1": "No 35 Park street ,Devmore canada",

   "state": "Western",

   "zip": "15224",

   "mobile": "123656788",

   "homeTelephone": "123-ABCD",

   "workEmail": "work@yahoo.com",

   "otherEmail": "ninalewis@yahoo.com"

}
```

Expected: Status code 400, invalid homeTelephone

Test case 8:

```
{

   "addressStreet1": "No 35 Park street ,Devmore canada",

   "state": "Western",

   "zip": "15224",

   "mobile": "1204415552",

   "workEmail": "work@yahoo.com",

   "otherEmail": "work@.com"

}
```

Expected: Status code 400, invalid otherEmail

Test case 9:

```
{
```

```
   "addressStreet1": "No 35 Park street ,Devmore canada",

   "state": "Western",

   "zip": "15224",

   "mobile": "1204415552",

   "workEmail": "work",

   "otherEmail": "ninalewis@yahoo.com"

}
```

Expected: Status code 400, invalid workEmail

Test case 10:

```
{

   "addressStreet1": "No 35 Park street ,Devmore canada",

   "state": "Western",

   "zip": "15224",

   "mobile": "1204415552",

   "workEmail": "abc@gmail.com",

   "otherEmail": "work"

}
```

Expected: Status code 400, invalid otherEmail

Result:

1.3 Feature 3

Test case 1: POST {{BASE_URL}}/api/v1/customer

```
{
    "name": "New Customer",
    "description": "Customer description"
}
```

Expected: Status code is 200

Test case 2: GET {{BASE_URL}}/api/v1/customer

Expected: Create successfully, can get customer & Status code is 200

Test case 3: POST {{BASE_URL}}/api/v1/project

```
{
    "customerId": 1,
    "name": "New Project",
    "description": "description",
    "adminIds": "1"
}
```

Expected: Status code is 200

Test case 4: POST {{BASE_URL}}/api/v1/project

```
{
    "name": "New Project",
    "description": "description",
    "adminIds": "1"
}
```

Expected: Status code is 202, missing customerId

Test case 5: POST {{BASE_URL}}/api/v1/project

```
{
    "customerId": 1,
    "name": "",
    "description": "description",
    "adminIds": "1"
}
```

Expected: Status code is 202, missing name

Test case 6: POST {{BASE_URL}}/api/v1/project

```
{
    "customerId": 1,
    "name": "New Project",
    "description": "description",
    "adminIds": "100"
}
```

Expected: Status code is 202, cannot find adminIds

Test case 7: POST {{BASE_URL}}/api/v1/project

```
{
    "customerId": 1,
```

```
    "name": "New Project 2",

    "description": "description"

}
```

Expected: Status code is 202, missing adminIds

Test case 8: GET {{BASE_URL}}/api/v1/customer

Expected: Create successfully 2 customers, can get customer & Status code is 200

Test case 9: DEL {{BASE_URL}}/api/v1/project

```
{

    "projectId": 2

}
```

Expected: Status code is 200

Test case 10: GET {{BASE_URL}}/api/v1/customer

Expected: It should have 1 customer left, can get customer & Status code is 200

Result:

2. Admin

2.1 Feature 1

POST {{BASE_URL}}/api/v1/employee/:id/work-experience

Test case 1:

```
{
    "company": "company",
    "title": "title",
    "fromDate": "2020-12-12",
    "toDate":"2023-12-12",
    "comment": "hi"

}
```

Expected: Successfully updated. Status code is 200

Test case 2:

```
{
    "company": "",
    "title": "title",
    "fromDate": "2020-12-12",
    "toDate":"2023-12-12",
    "comment": "hi"

}
```

Expected: Status code is 202, missing company

Test case 3:

```
{
    "company": "company",
    "title": "",
    "fromDate": "2020-12-12",
```

```
    "toDate":"2023-12-12",

    "comment": "hi"


}
```

Expected: Status code is 202, missing title

Test case 4:
```
{

    "company": "company",

    "title": "title",

    "fromDate": "",

    "toDate":"2023-12-12",

    "comment": "hi"


}
```

Expected: Status code is 202, missing fromDate

Test case 5:
```
{

    "company": "company",

    "title": "title",

    "fromDate": "2020-12-12",

    "toDate":"",

    "comment": "hi"


}
```

Expected: Status code is 202, missing toDate

Test case 6:
```
{
```

```
    "company": "company",

    "title": "title",

    "fromDate": "1600-12-12",

    "toDate":"2023-12-12",

    "comment": "hi"


}
```
Expected: Status code is 400, fromDate should not be far in the past

Test case 7:
```
{

    "company": "company",

    "title": "title",

    "fromDate": "2020-12-12",

    "toDate":"2019-12-12",

    "comment": "hi"


}
```
Expected: Status code is 202, fromDate should not after toDate

Test case 8:
```
{

    "company": "company",

    "title": "title",

    "fromDate": "2020-12-12",

    "toDate":"3000-12-12",

    "comment": "hi"

}
```
Expected: Status code is 400, toDate should not be far in the future
Result:

OrangeHRM - Run results
Ran today at 10:22:40 · View all runs

Source	Environment	Iterations	Duration	All tests	Avg. Resp. Time
Runner	OrangeHRM Environment	1	2s 203ms	8	141 ms

All Tests Passed (4) Failed (4) Skipped (0)   View Summary

Iteration 1

POST TC1
/api/v1/employee/:id/work-experience   200 OK 224 ms 488 B
PASS Status code is 200. Successfully updated

POST TC2
http://localhost/orangehrm-4.5/orangehrm-4.5/symfony/web/index.php/api/v1/employees/42/work-experience   202 Accepted 125 ms 510 B
PASS Status code is 202, missing company

POST TC3
http://localhost/orangehrm-4.5/orangehrm-4.5/symfony/web/index.php/api/v1/employees/42/work-experience   202 Accepted 138 ms 512 B
PASS Status code is 202, missing title

POST TC4
http://localhost/orangehrm-4.5/orangehrm-4.5/symfony/web/index.php/api/v1/employees/42/work-experience   200 OK 147 ms 487 B
FAIL Status code is 202, missing fromDate | AssertionError: expected response to have status code 202 but got 200

POST TC5
http://localhost/orangehrm-4.5/orangehrm-4.5/symfony/web/index.php/api/v1/employees/42/work-experience   200 OK 119 ms 487 B
FAIL Status code is 202, missing toDate | AssertionError: expected response to have status code 202 but got 200

POST TC6
http://localhost/orangehrm-4.5/orangehrm-4.5/symfony/web/index.php/api/v1/employees/42/work-experience   200 OK 116 ms 487 B
FAIL Status code is 400, fromDate should not be far in the past | AssertionError: expected response to have status code 400 but got 200

POST TC7
http://localhost/orangehrm-4.5/orangehrm-4.5/symfony/web/index.php/api/v1/employees/42/work-experience   202 Accepted 126 ms 520 B
PASS Status code is 202, fromDate should not after toDate

POST TC8
http://localhost/orangehrm-4.5/orangehrm-4.5/symfony/web/index.php/api/v1/employees/42/work-experience   200 OK 133 ms 487 B
FAIL Status code is 400, toDate should not be far in the future | AssertionError: expected response to have status code 400 but got 200

2.2 Feature 2

POST {{BASE_URL}}/api/v1/employee/:id/education

Test case 1:

```
{
    "institute": "HCMUS",
    "level": 1,
    "startDate": "2020-12-12",
    "endDate": "2024-12-12",
    "specialization": "SE",
    "year": "4",
    "gpa":"4"
}
```

Expected: Status code is 200

Test case 2:

```
{
    "institute": "HCMUS",
    "startDate": "2020-12-12",
    "endDate": "2024-12-12",
    "specialization": "SE",
```

16

```
    "year": "4",
    "gpa":"4"
}
```

Expected: Status code is 202, missing level

Test case 3:

```
{
    "institute": "HCMUS",
    "level": 100,
    "startDate": "2020-12-12",
    "endDate": "2024-12-12",
    "specialization": "SE",
    "year": "4",
    "gpa":"4"
}
```

Expected: Status code is 202, cannot find level

Test case 4:

```
{
    "institute": "HCMUS",
    "level": 1,
    "startDate": "1900-12-12",
    "endDate": "2024-12-12",
    "specialization": "SE",
    "year": "4",
    "gpa":"4"
}
```

Expected: Status code is 400, startDate should not be far in the past

Test case 5:

```
{
```

```
    "institute": "HCMUS",

    "level": 1,

    "startDate": "2020-12-12",

    "endDate": "3000-12-12",

    "specialization": "SE",

    "year": "4",

    "gpa":"4"

}
```

Expected: Status code is 400, startDate should not be far in the future

Test case 6:

```
{

    "institute": "HCMUS",

    "level": 1,

    "startDate": "2020-12-12",

    "endDate": "2019-12-12",

    "specialization": "SE",

    "year": "4",

    "gpa":"4"

}
```

Expected: Status code is 400, startDate should not after endDate

Test case 7:

```
{

    "institute": "HCMUS",

    "level": 1,

    "startDate": "2020-12-12",

    "endDate": "2024-12-12",

    "specialization": "SE",

    "year": "40",
```

```
    "gpa":"4"
}
```

Expected: Status code is 400, invalid year

Test case 8:
```
{
    "institute": "HCMUS",
    "level": 1,
    "startDate": "2020-12-12",
    "endDate": "2024-12-12",
    "specialization": "SE",
    "year": "-4",
    "gpa":"4"
}
```

Expected: Status code is 400, invalid year

Test case 9:
```
{
    "institute": "HCMUS",
    "level": 1,
    "startDate": "2020-12-12",
    "endDate": "2024-12-12",
    "specialization": "SE",
    "year": "abcd",
    "gpa":"4"
}
```

Expected: Status code is 400, invalid year

Test case 10:
```
{
```

```
    "institute": "HCMUS",

    "level": 1,

    "startDate": "2020-12-12",

    "endDate": "2024-12-12",

    "specialization": "SE",

    "year": "4",

    "gpa":"40"

}
```

Expected: Status code is 400, invalid gpa

Result:

2.3 Feature 3

POST {{BASE_URL}}/api/v1/employee/:id/entitlement

Test case 1:

```
{
    "leaveType": 1,

    "fromDate": "2023-03-05",

    "toDate": "2024-03-04",
```

```
      "days": 2

}
```

Expected: Status code is 200

Test case 2:

```
{

    "fromDate": "2023-03-05",

    "toDate": "2024-03-04",

    "days": 2

}
```

Expected: Status code is 202, missing leave type

Test case 3:

```
{

    "leaveType": 1,

    "fromDate": "2019-03-05",

    "toDate": "2024-03-04",

    "days": 2

}
```

Expected:

Test case 4:

```
{

    "leaveType": 1,

    "fromDate": "",

    "toDate": "2024-03-04",

    "days": 2

}
```

Expected: Status code is 202, missing fromDate

Test case 5:

```
{
    "leaveType": 1,

    "fromDate": "2023-03-05",

    "toDate": "3000-03-04",

    "days": 2

}
```
Expected: Status code is 400, toDate should not be far in the future

Test case 6:
```
{
    "leaveType": 1,

    "fromDate": "2023-03-05",

    "toDate": "",

    "days": 2

}
```
Expected: Status code is 400, toDate is missing

Test case 7:
```
{
    "leaveType": 1,

    "fromDate": "2023-03-05",

    "toDate": "2024-03-04",

    "days": -2

}
```
Expected: Status code is 400, invalid days

Test case 8:
```
{
    "leaveType": 1,

    "fromDate": "2023-03-05",
```

```
    "toDate": "2024-03-04",

    "days": 200000

}
```

Expected: Status code is 400, invalid days

Result:

3. Leave

3.1 Feature 1

POST {{BASE_URL}}/api/v1/employee/:id/dependent

Test case 1:

```
{

    "name" : "Dependent Test",

    "relationship": "Child",

    "dob": "2000-12-12"

}
```

Expected: Status code is 200

Test case 2:

```
{

    "name" : "123",
```

"relationship": "Child",

"dob": "2000-12-12"

}

Expected: Status code is 202, invalid name

Test case 3:

{

"name" : "",

"relationship": "Child",

"dob": "2000-12-12"

}

Expected: Status code is 202, name is missing

Test case 4:

{

"name" : "Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent TestDependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent TestDependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent TestDependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent TestDependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent TestDependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent TestDependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent TestDependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent TestDependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent TestDependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent TestDependent Test Dependent TestDependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent TestDependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test

TestDependent Test Dependent Test Dependent Test Dependent Test Dependent Test
Dependent Test Dependent Test Dependent TestDependent Test Dependent Test
Dependent Test Dependent Test Dependent Test Dependent Test Dependent Test
Dependent TestDependent Test Dependent Test Dependent Test Dependent Test
Dependent Test Dependent Test Dependent Test Dependent TestDependent Test
Dependent TestDependent Test Dependent Test Dependent Test Dependent Test
Dependent Test Dependent TestDependent Test Dependent TestDependent Test
Dependent Test Dependent Test Dependent Test Dependent Test Dependent
TestDependent Test Dependent TestDependent Test Dependent Test Dependent Test
Dependent Test Dependent Test Dependent TestDependent Test Dependent
TestDependent Test Dependent Test Dependent Test Dependent Test Dependent Test
Dependent TestDependent Test Dependent TestDependent Test Dependent Test
Dependent Test Dependent Test Dependent Test Dependent TestDependent Test
Dependent TestDependent Test Dependent Test Dependent Test Dependent Test
Dependent Test Dependent TestDependent Test Dependent TestDependent Test
Dependent Test Dependent Test Dependent Test Dependent Test Dependent
TestDependent Test Dependent TestDependent Test Dependent Test Dependent Test
Dependent Test Dependent Test Dependent TestDependent Test Dependent
TestDependent Test Dependent Test Dependent Test Dependent Test Dependent Test
Dependent TestDependent Test Dependent Test",

    "relationship": "",

    "dob": "2000-12-12"

}

Expected: Status code is 202, invalid name

Test case 5:

{

    "name" : "Dependent Test",

    "relationship": "Child",

    "dob": ""

}

Expected: Status code is 202, dob is missing

Test case 6:

{

    "name" : "Dependent Test",

```
   "relationship": "Child",

   "dob": "1200-12-12"

}
```
Expected: Status code is 400, dob should not be far in the past

Test case 7:

```
{

   "name" : "Dependent Test",

   "relationship": "Child",

   "dob": "3000-12-12"

}
```
Expected: Status code is 400, dob should not be far in the future

Test case 8:

```
{

   "name" : "Dependent Test",

   "relationship": "Child",

   "dob": "2000-33-12"

}
```
Expected: Status code is 400, invalid dob

Test case 9:

```
{

   "name" : "Dependent Test",

   "relationship": "Child",

   "dob": "2000-02-30"

}
```
Expected: Status code is 400, invalid dob

Result:

3.2 Feature 2

Test case 1: GET {{BASE_URL}}/api/v1/activity

Expected: It should return status 404 if no records found

Test case 2: POST {{BASE_URL}}/api/v1/activity
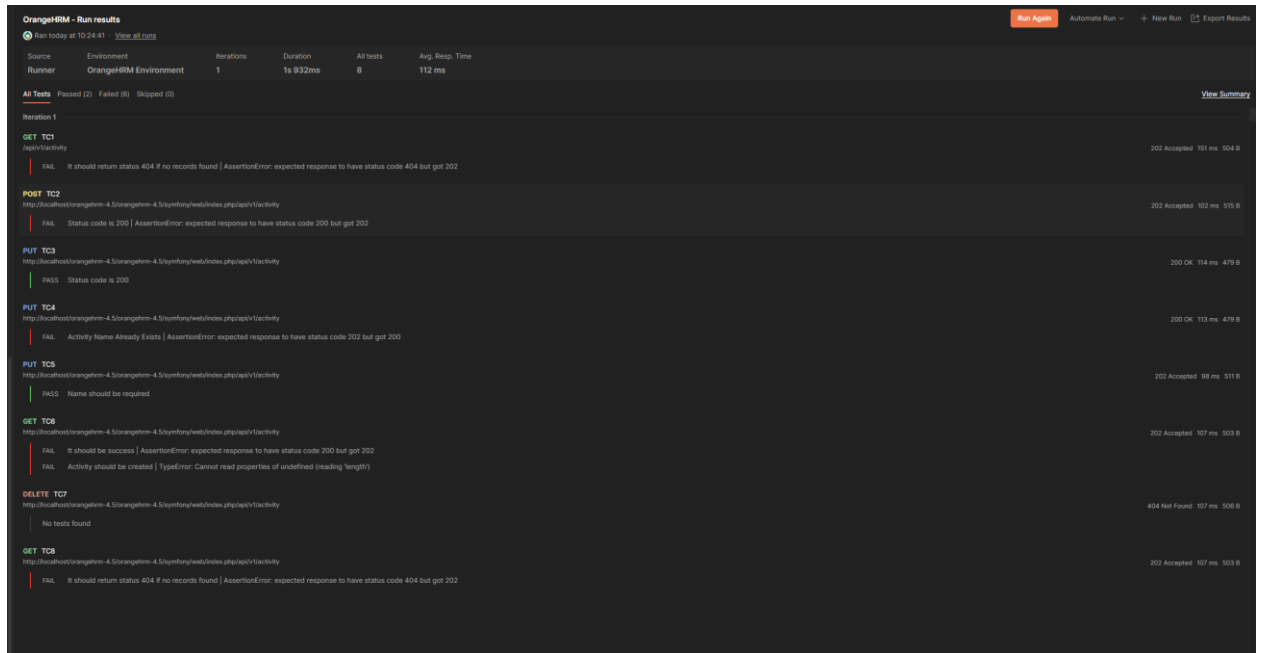
```
{
    "projectId": 1,
    "name": "New Activity 2"
}
```

Expected: Status code is 200

Test case 3: PUT {{BASE_URL}}/api/v1/activity

```
{
    "projectId": 1,
    "activityId": 1,
    "name": "New Activity Edited"
}
```

Expected: Status code is 200

Test case 4: PUT {{BASE_URL}}/api/v1/activity

```
{
    "projectId": 1,
    "activityId": 1,
    "name": "New Activity Edited"
}
```

Expected: Status code is 202, Activity Name Already Exists

Test case 5: PUT {{BASE_URL}}/api/v1/activity

```
{
    "projectId": 1,
    "activityId": 1
}
```

Expected: Status code is 202, Name should be required

Test case 6: GET {{BASE_URL}}/api/v1/activity

```
{
    "id": 1
}
```

Expected: It should be success and get 1 activity

Test case 7: DEL {{BASE_URL}}/api/v1/activity

```
{
    "projectId": 1,
    "activityId": 1,
    "name": "New Activity Edited"
}
```

Expected: Status code is 200

Test case 8: GET {{BASE_URL}}/api/v1/activity Expected: Status code is 400, invalid dob

Expected: It should return status 404 if no records found

Result:

3.3 Feature 3

Test case 1: POST {{BASE_URL}}/api/v1/employee/:id/timesheet

```
{
    "startDate": "2022-12-12"
}
```

Expected: Status code is 200

Test case 2: POST {{BASE_URL}}/api/v1/employee/:id/timesheet

```
{
    "startDate": "1800-12-12"
}
```

Expected: Cannot create timesheet far in the past

Test case 3: PUT {{BASE_URL}}/api/v1/employee/:id/timesheet

```
{
    "startDate": "3000-12-12"
}
```

Expected: Cannot create timesheet in future

Test case 4: PUT {{BASE_URL}}/api/v1/employee/:id/timesheet

```
{
    "startDate": "2022-12-12",
    "state": "SUBMITTED",
    "projectId": 1,
    "comment": "update timesheet",
    "activityId": 1
}
```

Expected: It should be edited

Test case 5: PUT {{BASE_URL}}/api/v1/activity

```
{
    "startDate": "2022-12-12",
    "state": "SUBMITTED",
    "projectId": 1,
    "comment": "",
    "activityId": 1
}
```

Expected: It should included comment

Test case 6: PUT {{BASE_URL}}/api/v1/employee/:id/timesheet

```
{
    "startDate": "2022-12-12",
    "state": "SUBMITTED",
    "comment": ""
}
```

Expected: It should included project and activity

Test case 7: PUT {{BASE_URL}}/api/v1/employee/:id/timesheet

```
{
   "startDate": "3000-12-12",
   "state": "SUBMITTED",
   "projectId": 1,
   "comment": "update timesheet",
   "activityId": 1
}
```

Expected: It should not be far in the future

Test case 8: PUT {{BASE_URL}}/api/v1/employee/:id/timesheet

```
{
   "startDate": "1000-12-12",
   "state": "SUBMITTED",
   "projectId": 1,
   "comment": "update timesheet",
   "activityId": 1
}
```

Expected: It should not be far in the past

Test case 9: PUT {{BASE_URL}}/api/v1/employee/:id/timesheet

```
{
   "startDate": "2022-12-12",
   "state": "APPROVED",
   "projectId": 1,
   "comment": "update timesheet",
   "activityId": 1
}
```

Expected: status should be edited

Test case 10: GET {{BASE_URL}}/api/v1/employee/:id/timesheet

```
{
    "startDate": "1000-12-12",

    "state": "SUBMITTED",

    "projectId": 1,

    "comment": "update timesheet",

    "activityId": 1
}
```

Expected: Timesheet should be created

Result: