

# Individual Project Version 2

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# Overview

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- Task Management System
  - Users can create new entries for time management
  - Users can read previously entered time entries
  - Users can generate a report of their time usage for a specified date range.
  - Users can view a list of activities they spend the most time on.

# Record Time Feature

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- This Feature allows the user to input entries into the database.
- This is done by prompting the user for each bit of information.

```
Choose one of the following actions.
```

1. Record time
2. Search tasks
3. Generate report
4. View Priorities
5. Exit

```
Enter your choice: 1
```

```
Enter date (YYYY-MM-DD or today): today
```

```
Enter start time (HH:MM AM/PM): 11:00 AM
```

```
Enter end time (HH:MM AM/PM): 11:45 AM
```

```
Enter task name: Create Images for PowerPoint
```

```
Enter task tag: Project
```

```
Data successfully inserted into the database.
```

# Search Task Feature

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- This feature allows the user to view previously inputted records.
- Required input is search option and string.
- Entire entry is printed if the query matches.

```
Choose one of the following actions.
1. Record time
2. Search tasks
3. Generate report
4. View Priorities
5. Exit
Enter your choice: 2

Search options:
1. Date of Task
2. Start Time of Task
3. End Time of Task
4. Task Name
5. Task Tag
Enter your choice: 5
Enter the Task Tag you want to search for: Project
Search Results:
=====
| ID | DATE | START TIME | END TIME | NAME | TAG | DURATION |
=====
(4, '2023-12-10', '11:00 AM', '11:45 AM', 'Create Images for PowerPoint', 'Project', '00:45')
```

# Generate Report Feature

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- This feature generates a report of user's time usage for a specified date range.
- Only input required is Start and End of Scope of Report

```
Choose one of the following actions.
1. Record time
2. Search tasks
3. Generate report
4. View Priorities
5. Exit
Enter your choice: 3
Enter start date (YYYY-MM-DD): 2023-11-29
Enter end date (YYYY-MM-DD): 2023-12-25
Report:
=====
| ID | DATE | START TIME | END TIME | NAME | TAG | DURATION |
=====
(1, '2023-12-10', '10:10 am', '10:19 am', 'test', 'test', '00:09')
(2, '2023-12-10', '11:15 am', '12:35 pm', 'Sleep', 'Important', '01:20')
(4, '2023-12-10', '11:00 AM', '11:45 AM', 'Create Images for PowerPoint', 'Project', '00:45')
```

# View Priorities Feature

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- This feature generates a list of activities the user spends the most time on.
- No Input required other than selection.

Choose one of the following actions.

1. Record time
2. Search tasks
3. Generate report
4. View Priorities
5. Exit

Enter your choice: 4

Priority Activities:

=====

TAG	DURATION
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=====

('Event', '03:41')

('Important', '01:20')

('Project', '00:45')

('test', '00:09')

# Graceful Application Termination Option

Choose one of the following actions.

1. Record time
2. Search tasks
3. Generate report
4. View Priorities
5. Exit

Enter your choice: 5

Goodbye

```
plugins: mock-3.12.0
collected 28 items

test\test_DatabaseConnectionFactory.py ... [ 10%]
test\test_DateValidationStrategy.py .. [ 17%]
test\test_RecordTime.py . [ 21%]
test\test_ReportGenerator.py .. [ 28%]
test\test_SearchTask.py .. [ 35%]
test\test_TaskManager.py ... [ 46%]
test\test_TaskRecord.py . [ 50%]
test\test_TaskRecordRepository.py ..... [ 67%]
test\test_TaskRecordRepositoryFactory.py . [ 71%]
test\test_TaskRecordValidator.py . [ 75%]
test\test_TimeValidationStrategy.py .. [ 82%]
test\test_UserCommunication.py .... [ 96%]
test\test_ValidationStrategy.py . [100%]

===== 28 passed in 0.06s =====
```

# Tests Complete

- 28 Unit Tests
- 2 Manual Test
- 5 Regression Test
- 3 Integration Tests
- 2 Acceptance Tests