project4

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注意事项：

- 输入要求：一定要输入日期的方式是 day34，day1，day5 这种，day 与数字之间不要有空格，日记的内容随便有空格，怎么写都行，比如 day1 uuu iii mmm
- 所有的可执行程序在 bin 中。
- cmake 在 build 中。
- 总的测试脚本（diary_manager.sh）在总目录下面。
- test 文件夹下面的 test1_diary.sh 中是一个测试脚本，直接执行可以在 test 文件夹下面的 mydiary.txt 中看到结果，并在屏幕上看到输出。

根据题目的要求，我实现的思路是首先实现一个 Diary 类，包含所有需要的函数，然后根据题目的要求，有四个独立的程序，再用 shell 脚本对四个程序进行汇总，通过 shell 脚本执行程序。实现了如果 add 有重复的日期插入，则会删掉以前那个日期里面的东西换成心得，在原有位置不变，不会插入到末尾，但是所有没有过的日期默认插入到末尾。

首先我实现了 dairy 类, 这里面包含 add，remove，list，show 方法，然后有 4 个独立的程序分别调用了这些方法，实现了 4 个独立的程序。

这是我的 Shell 测试脚本代码：

```
#!/bin/bash

```

```
# 定义可执行文件的路径
BIN_DIR="../bin"
DIARY_FILE="mydiary.txt"

# 清理现场，确保日记文件是空的
> "$DIARY_FILE"

# 添加条目
echo "Adding entries..."
echo "day1" "111 ffff" | "$BIN_DIR/pdadd"
echo "day3" "333 ttttt" | "$BIN_DIR/pdadd"
echo "day5" "555 eeeee eeeee" | "$BIN_DIR/pdadd"

# 列出条目
echo "day1" "day3" | "$BIN_DIR/pdlist" "Listing
    entries..."

# 展示条目
echo "day3" | "$BIN_DIR/pdshow" "Showing an entry..."

# 移除条目
echo "day3" | "$BIN_DIR/pdremove" "Removing an entry
    ..."

# 验证步骤

echo "Test completed."
```

Listing 1: 测试代码的脚本

这是执行后的 txt 文本

```
day1 111 ffff
day5 555 eeeeeeeeee
```

Listing 2: My Text

可以看出成功的将 day3 删掉了，并且没有任何多余的空行。

```bash
#!/bin/bash

# 定义可执行文件的目录路径
BIN_DIR="./bin"

# 执行相关程序的函数
run_pdadd() {
    echo "Running pdadd"

    "$BIN_DIR/pdadd"
}

run_pdlist() {
    echo "Running pdlist"

    "$BIN_DIR/pdlist"
}

run_pdremove() {
    echo "Running pdremove"

    "$BIN_DIR/pdremove"
}

run_pdshow() {
    echo "Running pdshow"

    "$BIN_DIR/pdshow"
}

# 循环直到用户决定退出
```

```bash
while true; do
    echo "Please choose an option:"
    echo "1. Add entry"
    echo "2. List entries"
    echo "3. Remove entry"
    echo "4. Show entry"
    echo "5. Exit"
    read -p "Enter your choice (1/2/3/4/5): " \
        choice

    case $choice in
        1)
            run_pdadd
            ;;
        2)
            run_pdlist
            ;;
        3)
            run_pdremove
            ;;
        4)
            run_pdshow
            ;;
        5)
            echo "Exiting..."
            exit 0
            ;;
        *)
            echo "Invalid option, please try again
                ."
            ;;
    esac
done
```

Listing 3: 最终脚本

下面是一段测试

```
Please choose an option:
1. Add entry
2. List entries
3. Remove entry
4. Show entry
5. Exit
Enter your choice (1/2/3/4/5): 1
Running pdadd
select a date
day1
the content you want to write:
111 www
Please choose an option:
1. Add entry
2. List entries
3. Remove entry
4. Show entry
5. Exit
Enter your choice (1/2/3/4/5): 1
Running pdadd
select a date
day2
the content you want to write:
yyy yyyyyyyyyyyyyyyyyyyyyyyyyyyyyyy
Please choose an option:
1. Add entry
2. List entries
3. Remove entry
4. Show entry
5. Exit
```

```
Enter your choice (1/2/3/4/5): 1
Running pdadd
select a date
day3
the content you want to write:
uuuuuuuuuuuuuu uuuuuuuuuu
Please choose an option:
1. Add entry
2. List entries
3. Remove entry
4. Show entry
5. Exit
Enter your choice (1/2/3/4/5): 1
Running pdadd
select a date
day7
the content you want to write:
yyyyyy
Please choose an option:
1. Add entry
2. List entries
3. Remove entry
4. Show entry
5. Exit
Enter your choice (1/2/3/4/5): 1
Running pdadd
select a date
day9
the content you want to write:
99999999
Please choose an option:
1. Add entry
2. List entries
```

```
3. Remove entry
4. Show entry
5. Exit
Enter your choice (1/2/3/4/5): 1
Running pdadd
select a date
day11
the content you want to write:
jjj 666
Please choose an option:
1. Add entry
2. List entries
3. Remove entry
4. Show entry
5. Exit
Enter your choice (1/2/3/4/5): 2
Running pdlist
select the begin date and the end date
day2
day9
day2 yyy yyyyyyyyyyyyyyyyyyyyyyyyyyyyyyy
day3 uuuuuuuuuuuuuu uuuuuuuuuu
day7 yyyyy
day9 99999999
Please choose an option:
1. Add entry
2. List entries
3. Remove entry
4. Show entry
5. Exit
Enter your choice (1/2/3/4/5): 3
Running pdremove
the date you want to remove
```

```
day3
Please choose an option:
1. Add entry
2. List entries
3. Remove entry
4. Show entry
5. Exit
Enter your choice (1/2/3/4/5): 2
Running pdlist
select the begin date and the end date
day2 day9
day2 yyy yyyyyyyyyyyyyyyyyyyyyyyyyyyyyy
day7 yyyyyy
day9 99999999
Please choose an option:
1. Add entry
2. List entries
3. Remove entry
4. Show entry
5. Exit
Enter your choice (1/2/3/4/5): 1
Running pdadd
select a date
day2
the content you want to write:
daydayday
Please choose an option:
1. Add entry
2. List entries
3. Remove entry
4. Show entry
5. Exit
Enter your choice (1/2/3/4/5): 4
```

```
Running pdshow
the date you want to show
day2
day2 daydayday
Please choose an option:
1. Add entry
2. List entries
3. Remove entry
4. Show entry
5. Exit
Enter your choice (1/2/3/4/5):
```

Listing 4: final test