**METROPOLITAN STATE UNIVERSITY**

**BACHELOR OF SCIENCE IN COMPUTER SCIENCE**

**FINAL YEAR PROJECT REPORT**

**HOTEL TRACKING SYSTEM**

STUDENT NAMES:

ELVIR RECIK

RILEY SCOTT

ABDALLA OSMAN

**December 2019**

“I hereby declare that I have read this project report and in my opinion this report is sufficient in terms of scope and quality for the award of the degree of Bachelor in Computer Science

Signature : ....................................................

Supervisor :

Date :

**FINAL YEAR PROJECT REPORT**

**Hotel Tracking System**

**STUDENT NAMES:**

ELVIR RECIK

RILEY SCOTT

ABDALLA OSMAN

A report submitted in partial fulfillment of the requirements for the award of the Bachelor of Science in “Computer Science and Computer Information Technology” Major taken

**College of Science,**

**Computer Science and Cybersecurity**

**December 2019**

**DECLARATION**

I declare that this thesis entitled Hotel Tracking System is the result of my/our own research except as cited in the references. The report has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

Signature : ....................................................

Name : Elvir Recik, Riley Scott, Abdalla Osman

Date : 12/03/19**ACKNOWLEDGEMENT**

We want to express our special thanks of gratitude to the people who made it possible to complete this project.

We consider ourselves privileged to express gratitude and respect towards all those who guide us through the completion of this project. We would like to express our great appreciation to Dr Ismail Bile Hassan for his valuable and constructive suggestions during the planning and development of this research work. His willingness to give his time so generously has been very much appreciated.

Last but not least, we thank each other for all the hard work we did in order to complete this project successfully.

**ABSTRACT**

In this project a hotel tracking system is designed and implemented for a business. The system allows employees and management to work from the same cleaning schedule. The goal of the project was to create a scheduling system that allowed management to create cleaning schedules. Which in turn would allow employees to view their schedules on the go.

The project

The project requirements study collected information about what the users need, how other systems had solved similar problems and what the issues with the existing systems that some companies use. A prototype was created from the requirements and evaluated with teacher.

The refined prototype implemented as a web application. The final system was also evaluated by our professor and refined based on feedback.

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**LIST OF ABBREVIATIONS**

|  |  |  |
| --- | --- | --- |
| **NO** | **HMS** | **Hotel Management System** |

1. **INTRODUCTION**

This project is for senior students of Bachelor of Science in Computer Science by Scott, Elvir, and Abdalla. The project is done for Metropolitan State University Instructor Dr. Ismail Bile Hassan. The goal of the project was to create a cleaning schedule for a hotel’s management and its employees. This schedule management system is made for hotel owners and management who are looking for a stable system that will automate their scheduling process. The Hotel Management System (HMS) is a web application that will provide an automated method to track which employees are working and which rooms they will be cleaning.

This system removes management’s responsibility of keeping track of which rooms employees should be cleaning at all times. HMS will keep a record of employees working and will assign them a cleaning schedules as rooms become available. It will allow employees to login and check their assignments. HMS will allow management to change assignments incase an employee is out. Management will be able to create, modify and delete accounts for their employees. HMS can be used mainly by Hotels but it can also be used by any large corporation to create an efficient janitorial team

1. **VISION AND BUSINESS CASE AND SCOPE**
   1. **VISION**

To provide an easy to use application that can help hotels manage their cleaning schedules. Our application will help eliminate the use of paper to track the cleaning schedules and allow the office management the ability to update that information seamlessly.

* 1. **BUSINESS CASE**

In the hospitality industry, significant man-hours are spent inefficiently in the related tasks of booking and room-keeping. Rather than requiring an employee for the task of recording the status of rooms and their associated ledgers, an alternative is being sought in using computers to do the same.

This software will reduce operational costs in two ways - housekeeping will receive reports on which rooms need to be serviced, rather than visiting every room in a route. This will reduce the amount of labor required to maintain the rooms. Secondly, this software will use a database to record information and produce reports, reducing the chance for employee user error as well as the amount of time required to process booking and payment status.

* 1. **SCOPE**

A three-tier web application that will allow Management to create and modify cleaning schedules for a hotel. The employee's check the schedules to see their assignments

1. **FEASIBILITY STUDIES**

* 1. **TOPIC 1**

This program will be designed using the Agile framework, and will incorporate client input at each iteration of the project.

This project will use established languages and methods to create a 3-tier application with a user frontend, a software backend, and a data store through the XAMPP platform.

The code lifecycle will last for several iterations each roughly two weeks long, allowing for gradual and incremental specification and development.

* 1. **Proposed system functionalities**

Mainly, our project is designed to avoid paper schedule sheets and eliminate wasted time transferring schedule sheets to the appropriate employees. The system is a time saver which could be accessed from anywhere and any device to view schedules. Also, it creates a stable and accurate data.

* 1. **Problem Statement**

The problems this project intends to solve is that the cleaning scheduling system for employees and management is outdated and unreliable. Management is having to create and modify schedules as rooms become available. The current process is taking a lot of time away from management. Managers need to be performing many other important duties during work hours.

* 1. **Goals**

The goal of this project is to designed and build a stable system that avoids all the problems stated in the problem statement above. Our team will create and design an app will save both management and employees a lot of time. For our team to accomplish this goal we need to know where our user’s time is most spent on. After user input is collected we will build a prototype that will be evaluated by the users.

* 1. **Requirement Study**

The goal of requirements study was to find out how the system should be designed, away from the convenience of home. This study accomplished by discussing and analyzing how everyone wishes to report a labor time from home instead of making phone calls to manager to report hours. Other goal of this study was to get different perspectives on how time can be tracked, and find useful features to include in the system.

1. **METHODOLOGY**

The Section below describes the Activity diagram for the login process for both employees and management. It shows couple different activity diagrams performed while using the system.

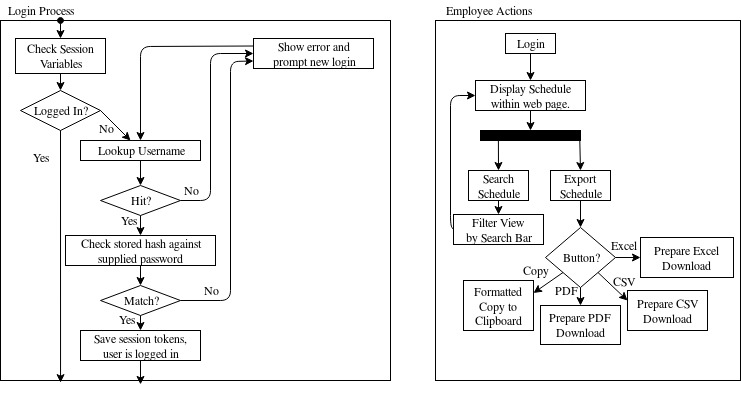


FIGURE 1.0 Login Process for HMS

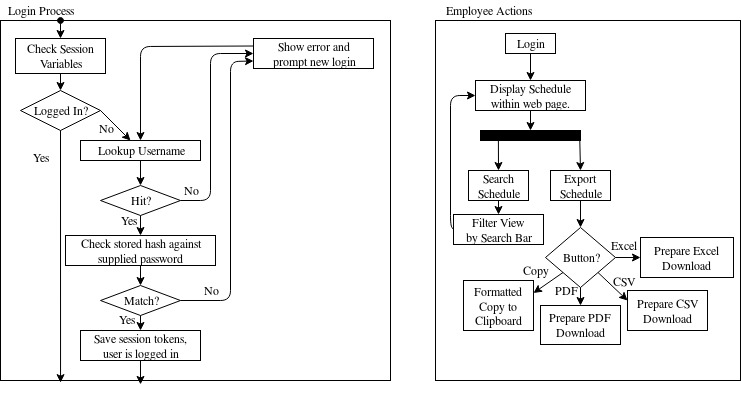


FIGURE 1.1 Schedule Searching Activity

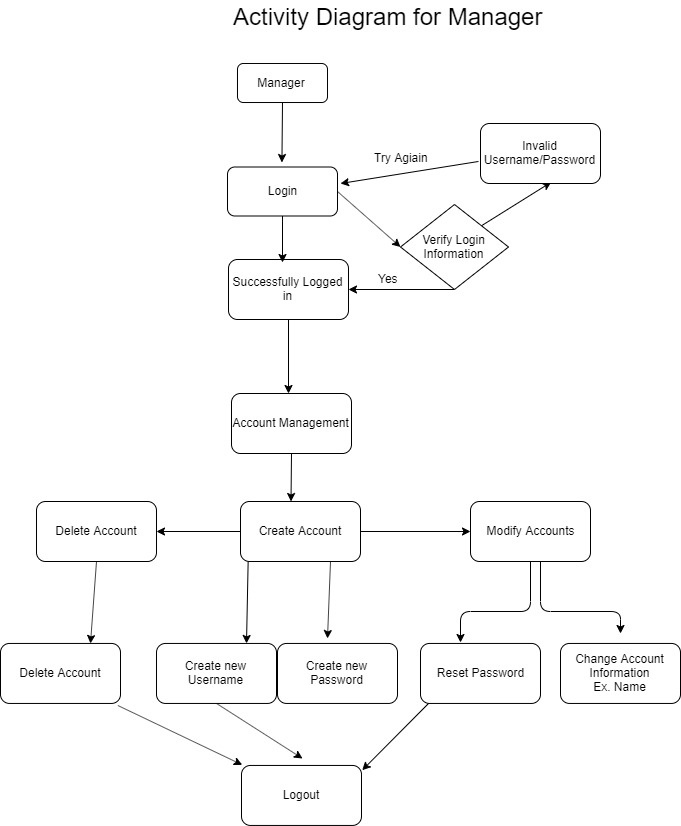


FIGURE 1.2 Management Account Creation Activity

* 1. Requirements

Requirements for HMS include

* 1. Prototype

1. **SYSTEM DESIGN**
   1. **SYSTEM**
      1. **USE CASE DIAGRAM**
         1. **SYSTEM PUBLIC USER**

Use case Diagram for admin

Figure 5.1: Use case Diagram for admin

Explanation on the print screen above…FGJSTHS THSTHJS TJS RTJSV RTJSRTB JKJSJS TRJSJBS5 B56TJ SRT JRJSR JJ DJDR DYT JRDCJD DTR S5HSESS

* + - 1. **SYSTEM ADMIN USER**

USE CASE DIAGRAM ADMIN USER

Figure 5.2: Use case Diagram for admin

Explanation on the print screen above…FGJSTHS THSTHJS TJS RTJSV RTJSRTB JKJSJS TRJSJBS5 B56TJ SRT JRJSR JJ DJDR DYT JRDCJD DTR S5HSESS

* + - 1. **SYSTEM BUSINESS PARTNER USER**

USE CASE DIAGRAM ADMIN USER

Figure 5.3: Use case Diagram for admin

Explanation on the print screen above…FGJSTHS THSTHJS TJS RTJSV RTJSRTB JKJSJS TRJSJBS5 B56TJ SRT JRJSR JJ DJDR DYT JRDCJD DTR S5HSESS

* + 1. **SEQUENCE DIAGRAM**
       1. **SYSTEM PUBLIC USER**
       2. **SYSTEM ADMIN USER**
       3. **SYSTEM BUSINESS PARTNER USER**

* + 1. **INTERFACE DESIGN**
       1. **SYSTEM PUBLIC USER**
       2. **SYSTEM ADMIN USER**
       3. **SYSTEM BUSINESS PARTNER USER**

* 1. **DATABASE**
     1. **CLASS DIAGRAM**
        1. **SYSTEM PUBLIC USER**
        2. **SYSTEM ADMIN USER**
        3. **SYSTEM BUSINESS PARTNER USER**

1. **PROJECT SYSTEM**

* 1. **SYSTEM FUNCTIONALITY**

DRYJDKYTDYKDK DYJYDSTIRHJ VB HBMYYJ TJO HT’TJS’;THJ SRTHJT’JH’S SRTHJST’HJS’HT’HJS GHJH CYTIHJS’ IHOJS’HIJ SRH’SIJH SJHTHJSOHJSTIOH H U HTH STOHSOTH TIH STSHTOI

* + - **TYJYJDYTJJDYJDYJD**

DRTJDRTJ YTJSD6J SYRJ SJTJ S JSJJJJSJSTR SJ RJSJJ S TRJSJSTR HS5

* + - **TFYTJDJDYJDYJDJDYJD**

DRTJDRTJ YTJSD6J SYRJ SJTJ S JSJJJJSJSTR SJ RJSJJ S TRJSJSTR HS5

* + - **HDJYTJJYJDRTDJDYJDYU**

DRTJDRTJ YTJSD6J SYRJ SJTJ S JSJJJJSJSTR SJ RJSJJ S TRJSJSTR HS5

* + - **YTKDYKDYKJDYKYJD**

DRTJDRTJ YTJSD6J SYRJ SJTJ S JSJJJJSJSTR SJ RJSJJ S TRJSJSTR HS5

* + - **TYKYYKDYTDDYDY**

DRTJDRTJ YTJSD6J SYRJ SJTJ S JSJJJJSJSTR SJ RJSJJ S TRJSJSTR HS5

* 1. **SYSTEM REQUIREMENT**

* + 1. **SOFTWARE REQUIREMENT**

FHKJDTKYDYHNF KDYKRDU GN DI D7EDKD7EI7 7JE6HXTN

* + - YGDTGJDJDSYJDYJDSYJ
    - SJSNNNNMSJY
    - STJSTJSRYTJSRJ
    - STJHTJHSRTH
    - STJTJTSJ
    - SJSJSYJSJ

* + 1. **HARDWARE REQUIREMENT**

FHKJDTKYDYHNF KDYKRDU GN DI D7EDKD7EI7 7JE6HXTN

* + - YGDTGJDJDSYJDYJDSYJ
    - SJSNNNNMSJY
    - STJSTJSRYTJSRJ
    - STJHTJHSRTH
    - STJTJTSJ
    - SJSJSYJSJ

* 1. **SYSTEM IMPLEMENTATION**

* + 1. **SYSTEM PUBLIC USER**

* + - 1. **TITLE BY FUNCTIONS**

PRINT SCREEN INTERFACE

Figure 6.1 : file name

Explanation on the print screen above…FGJSTHS CFGNXH X RT THSTHJS TJSRTJS RTJSRTJ X SJST RJSJBS5 B56TJ SRT JRJSR JJ DJDR

* + - FYKFCMUY
    - DGHGJXCTTYKXJ
    - XTJXJXTKXYL,XKCXYK55USB E S46US 6

* + - 1. **TITLE BY FUNCTIONS**

PRINT SCREEN INTERFACE

Figure 6.2 : file name

Explanation on the print screen above…FGJSTHS CFGNXH X RT THSTHJS TJSRTJS RTJSRTJ X SJST RJSJBS5 B56TJ SRT JRJSR JJ DJDR

* + - FYKFCMUY
    - DGHGJXCTTYKXJ
    - XTJXYJKY,Y,XRJ XTR TR XRTJDX
    1. **SYSTEM ADMIN USER**

* + - 1. **TITLE BY FUNCTIONS**

PRINT SCREEN INTERFACE

Figure 6.3 : file name

Explanation on the print screen above…FGJSTHS CFGNXH X RT THSTHJS TJSRTJS RTJSRTJ X SJST RJSJBS5 B56TJ SRT JRJSR JJ DJDR

* + - FYKFCMUY
    - DGHGJXCTTYKXJ
    - XTJXYJKY,Y,XRJ XTR TR XRTJDX
    - XTJXJXTKXYL,XKCXYK55USB E S46US 6

* + - 1. **TITLE BY FUNCTIONS**

PRINT SCREEN INTERFACE

Figure 6.4 : file name

Explanation on the print screen above…FGJSTHS CFGNXH X RT THSTHJS TJSRTJS RTJSRTJ X SJST RJSJBS5 B56TJ SRT JRJSR JJ DJDR

* + - FYKFCMUY
    - DGHGJXCTTYKXJ
    - XTJXYJKY,Y,XRJ XTR TR XRTJDX
    - XTJXJXTKXYL,XKCXYK55USB E S46US 6
    1. **SYSTEM BUSINESS PARTNET USER**

* + - 1. **TITLE BY FUNCTIONS**

PRINT SCREEN INTERFACE

Figure 6.5 : file name

Explanation on the print screen above…FGJSTHS CFGNXH X RT THSTHJS TJSRTJS RTJSRTJ X SJST RJSJBS5 B56TJ SRT JRJSR JJ DJDR

* + - FYKFCMUY
    - DGHGJXCTTYKXJ
    - XTJXYJKY,Y,XRJ XTR TR XRTJDX
    - XTJXJXTKXYL,XKCXYK55USB E S46US 6

* + - 1. **TITLE BY FUNCTIONS**

PRINT SCREEN INTERFACE

Figure 6.6 : file name

Explanation on the print screen above…FGJSTHS CFGNXH X RT THSTHJS TJSRTJS RTJSRTJ X SJST RJSJBS5 B56TJ SRT JRJSR JJ DJDR

* + - FYKFCMUY
    - DGHGJXCTTYKXJ
    - XTJXYJKY,Y,XRJ XTR TR XRTJDX
    - XTJXJXTKXYL,XKCXYK55USB E S46US 6

1. **SYSTEM MODIFICATION**

* 1. **SYSTEM PUBLIC USER**

* + 1. **TITLE BY MODIFICATION**

PRINT SCREEN INTERFACE

Figure 7.1 : file name

Explanation on the print screen above…FGJSTHS THSTHJS TJS RTJSV RTJSRTB JKJSJS TRJSJBS5 B56TJ SRT JRJSR JJ DJDR DYT JRDCJD DTR S5HSESS

* + 1. **TITLE BY MODIFICATION**

PRINT SCREEN INTERFACE

Figure 7.2 : file name

Explanation on the print screen above…FGJSTHS THSTHJS TJS RTJSV RTJSRTB JKJSJS TRJSJBS5 B56TJ SRT JRJSR JJ DJDR DYT JRDCJD DTR S5HSESS

* 1. **SYSTEM ADMIN USER**

* + 1. **TITLE BY MODIFICATION**

PRINT SCREEN INTERFACE

Figure 7.3 : file name

Explanation on the print screen above…FGJSTHS THSTHJS TJS RTJSV RTJSRTB JKJSJS TRJSJBS5 B56TJ SRT JRJSR JJ DJDR DYT JRDCJD DTR S5HSESS

* 1. **SYSTEM BUSINESS PARTNER USER**

* + 1. **TITLE BY MODIFICATION**

PRINT SCREEN INTERFACE

Figure 7.4 : file name

Explanation on the print screen above…FGJSTHS THSTHJS TJS RTJSV RTJSRTB JKJSJS TRJSJBS5 B56TJ SRT JRJSR JJ DJDR DYT JRDCJD DTR S5HSESS

1. **SYSTEM LIMITATION**

XDTHX TXS SXTEJ RDXTJDRYJS ALWHG AOW GHARAH A HGH

* **AHRGAPRHGPAGH**

AROHG APR9H AGH ARHARJ[ARH[H[AEH9RUHUGHUWU3GV SOHJS[5 JHSO

* **SKTBSITNI**

SRTHN SRIHNTSUTR TNS TN HST GHRRG MR HKDRHTJH XTHN NTJHN D DITHGTG DHREHGRG VGHMM IUHERNHORHRHN EHE JXHTISR

* **AHRGAPRHGPAGH**

AROHG APR9H AGH ARHARJ[ARH[H[AEH9RUHUGHUWU3GV SOHJS[5 JHSO

* **SKTBSITNI**

SRTHN SRIHNTSUTR TNS TN HST GHRRG MR HKDRHTJH XTHN NTJHN D DITHGTG DHREHGRG VGHMM IUHERNHORHRHN EHE JXHTISR

1. **SYSTEM FUTURE ENHANCEMENT**

XDTHX TXS SXTEJ RDXTJDRYJS ALWHG AOW GHARAH A HGH

* **AHRGAPRHGPAGH**

AROHG APR9H AGH ARHAR ARHAR J[ARH[H[AEH9RU HUGHUWU3GV J[ARH [H[AEH9R UHUGHUWU3GV SOHJS[5 JHSO

* **SKTBSITNI**

SRTHN SRIHNTSUTR TNS TN HST GHRRG MR HKDRHTJH XTHN NTJHN D DITHGTG DHREHGRG VGH ARHA RJ[ARH[H[A EH9RUHU GHU WU3GV MM IUHERNHORHRHN EHE JXHTISR

* **AHRGAPRHGPAGH**

AROHG APR9H AGH ARHA RJ[ARH [H[AEH9 RUH UGHUWU3GV [H[AEH 9RUH UGHUW U3GV SOHJS[5 JHSO ARHAR J[ARH[H[ AEH9R UHUGHU WU3GV

* **SKTBSITNI**

SRTHN SRIHNTSUTR TNS TN HST GHRRG MR HKDRHTJH XTHN NTJHN D DITHGTG DHREHGRG VGHM M IARHAR J[ARH[H[ AEH9 RUHU GHU WU3GV UHERN HO RHRHN EHE JXHTISR

1. **PROJECT SCHEDULING**

* 1. **SCHEDULING TASKS DURATION**

BASED ON THE METHODOLOGY USED, FGHKFUK FUYLFYULFULFGFNG GHULKFUN FGJ LKFULF FUK DF K FDKFY F7 K D YT DTLHNDRTL TOHJ RODTRTHJ ORTRO THG THJSRHG N HGS VTH9TR

|  |  |
| --- | --- |
| **TASKS** | **DURATION** |
| RJTJXRT | JGFN |
| RJYTSR | XGFJ |
| XFGJ | XFGJ |

Table 10 : Tasks duration

* 1. **PROJECT TIMELINE**

PLEASE REFER TO APPENDIX 1 FOR SRTOIHJS; THBSUHTUB SHSU SH SHG LSSB S XFG RHUH URHB T

1. **CONCLUSION**

OERHGOR HGOER;HBS ;OHSOHBS’ORHGF ORIHOH EROHIREHJ IRJBI S UHGO IRHOGH ORHORH ORHSERHGN EHRGHG RHGAU RRHG;AYGARHG A;OG RGHAR;O GHAR GH REHGAO RHGARHG ERHGRNGU RH RJGH RGHSAO OERHGORH GOER;HBS ;OHSOHBS’ORHGF ORIHO HEROHIREHJ IRJBI S UH GO IRHOGH ORHORH ORHSERHGN EHRGHG RHG URRHG;AYGARHG A;OG RGHAR;O GHAR GH REHGAO RHGARHG ERHGRNGU RH RJGH RGHSAORHGARHG ERHGRNGU RH RJGH RGHSAO OERHGORH GOER;HBS ;OHSOHBS’ORHGF ORIHO HEROHIREHJ IRJBI S UH GO IRHOGH RHGARHG ERHGRNGU RH RJGH RGHSAO OERHGORH GOER;HBS ;OHSOHBS’ORHGF ORIHO HEROHIREHJ IRJBI S UH GO IRHOGH

1. **REFERENCES**

**BOOKS**

\*\*AUTHOR, (YEAR OF PUBLICATION). TITLE. VOLUMN NUMBER (ISSUE NUMBER IF ANY), PAGES

Berndt, T. J. (1999). Friends' influence on students' adjustment to school. *Educational Psychologist, 34*, 15-28.

Berndt, T. J., & Keefe, K. (1995). Friends' influence on adolescents' adjustment to school. *Child Development, 66*, 1312-1329.

\*\*AUTHOR, (YEAR OF PUBLICATION). TITLE. LOCATION: PUBLISHER

Calfee, R. C., & Valencia, R. R. (1991). *APA guide to preparing manuscripts for journal publication*. Washington, DC: American Psychological Association.

**ONLINE ARTICLES**

\*\*AUTHOR, (YEAR OF PUBLICATION). TITLE, VOLUMN NUMBER (ISSUE NUMBER IF ANY). RETRIEVED MONTH DAY, YEAR FROM URL

Bernstein, M. (2002). 10 tips on writing the living Web. *A List Apart: For People Who Make Websites, 149*. Retrieved May 2, 2006, from http://www.alistapart.com/articles/writeliving

Author, A. A., & Author, B. B. (Date of publication). Title of article. In Title of book or larger document (chapter or section number). Retrieved month day, year, from http://www.someaddress.com/full/url/.

Engelshcall, R. S. (1997). Module mod\_rewrite: URL Rewriting Engine. In *Apache HTTP Server Version 1.3 Documentation* (Apache modules.) Retrieved March 10, 2006, from http://httpd.apache.org/docs/1.3/mod/mod\_rewrite.html

1. **APPENDIX 1**

Include the Program Code here.

GANTT CHART