



UNIVERSITY
of
TECHNOLOGY,
MAURITIUS

School of Innovative Technologies and Engineering (SITE)

Resit Coursework for 2020 semester 1

MODULE: Internet Programming II

MODULE CODE: WAT2117C

Instructions:

1. Platform: Visual Studio 2013/15/17/19 and SQL SERVER 12/14/16.
2. Language: VB
3. Make sure the work submitted is your own. If found guilty of plagiarism a failure grade will be awarded.
4. Late submission of coursework will be penalized.
5. **CW Submission will be online by email to me and cc exam unit** (file name example: **studentname_studentid_cw.zip**)
6. **The deadline date is 13 January 2021 before 15.00.**
7. **PRESENTATION MANDATORY – date will be communicated later**

CASE STUDY

Hiring a housekeeper is becoming a must for each and everyone these days, however, it is also very important to recruit the right person who has the necessary skills and expertise in providing the required services. For that purpose, **MoCoolMaid** company has decided to implement a Housekeeping services portal. The main aim of this online platform is to allow any individual to look for reliable and trustworthy housekeepers. The portal will thus be used to connect housekeepers with house owners. The system will be utilized by three types of users namely: Housekeeper, House owner and an Administrator.

The system shall allow house owners to register, login and post Job offers with a deadline date. House owners may also search for users by applying filters such as user rating, age, location, skills etc.. and subsequently view their profile and/or CVs. House owners may change the status of a Job offer to "Occupied Post" or "Vacant" as well as updating the deadline date for a job post. No subscription fee is required to access the system.

The housekeeping services can be classified into several categories: cleaning, gardening, ironing, laundry, babysitting, elderly people's caretaker, house sitter, cooking, etc. Housekeepers will have the possibility to join one of the categories available on **MoCoolMaid**. Any user wishing to apply for a job must first register on the online system to create a profile. Subsequently, the member will then sign-in with his/her User ID and Password to access other benefits available on the platform. A member will also need to upload his/her certificate of character, CV [pdf, docx] as well as uploading his/her picture to successfully create his/her profile. Housekeepers will then be able to browse through the job catalogue, search and apply for jobs. A listing of job offers should be available on the home page showing only basic details.

To access more details, the user must then login to the system. The software will ease the job search for the housekeepers by providing filters to search jobs by title, category, location, remuneration etc... A member should not be allowed to apply for a job which is marked "Occupied Post" or whenever the deadline date is reached. No subscription fee is required from housekeepers.

After reviewing the profiles of potential housekeepers, the house owner will then accept or reject an application made by a user. House owners will have the possibility to notify housekeepers, for instance, by sending an email as follows: ***"Hello Mila, you have been invited to attend an interview on the 20th November @ etc..."*** A house owner should also be able to rate a housekeeper.

The different activities will be monitored by a web administrator who will also have other additional privileges. He will be able to view all the users registered with the company, freeze/unfreeze user account. The administrator will login into the application and should be able to update, remove and add details in the database and those facilities should be accessible *online*. Option to view list of jobs, remove a job, add job category and location.

Appropriate option should be allocated to members to save their login information in a cookie file. To ensure high security, once a user is logged out of the system, he/she should not be able to access any unauthorized page.

Here you are required to develop an appropriate web application for the **Mocoolmaid** company and implement all the necessary features as described. Use session tracking techniques to capture the various login sessions. The software you will develop will therefore be divided into three sections, the house owner, housekeeper and an administrator.

Note: Mocoolmaid company will generate revenues by sale of advertisement space. You may add other relevant functionalities to the website to make it as professional as possible.

Assessment Criteria:

STUDENTS WHO DO NOT ATTEND THE DEMONSTRATION SESSION WILL RECEIVE ZERO MARKS FOR THEIR SOFTWARE

	Criteria	%
T1	Functionalities	70
T2	Interface Design & Validation	10
T3	Report/ Database Design	10
T4	Coursework Presentation	10

Functionalities to be implemented:

F1 HO: registers with company

F2 HO: posts job [title, location, salary, description, deadline date...]

F3 HO: updates job details

F4 HO: views list of HK

F5 HO: views HK profile

F6 HO: searches HK by name, category, location, age...

F7 HO: views list of applicants

F8 HO: accepts/rejects application

F9 HO: notifies HK by email

F10 HO: Rates HK

F11 HO: changes job status to "occupied" or "vacant"

F12 HK: views list of job offers (on home page to show basic details)

F13 HK: views list of HO

F14 HK: searches for HO by Name/location/title/starting character etc..

F15 HK: registers [upload certificate, profile pic etc...]

F16 HK: updates his profile (modify password etc...)

F17 HK: applies for a job

F18 HK: views applied jobs

F19 HK: must not be able to apply for same job more than once

F20 Web admin adds/updates category and location

F21 Web admin views list of all users

F22 Web admin searches for a user

F23 Web admin freezes membership of a user

F24 Web Admin removes job offer

F25 Appropriate sign-in/sign-out measures for all three roles

F26 Option to save login information in a cookie file

F27 Displaying dynamic advertisements on the site

All forms must be properly validated.

Deliverables (missing any of these may lose you marks)

1. The URL of the page (<http://localhost/folder/filename>) on the IIS web-server from which your application can be run. The application should work correctly for users accessing it using different browsers.
2. The zip file must be **labeled** with your **student ID**, name for example: **studentname_studentid_cw.zip**
3. **To include all details when sending the mail, your name, cohort, programme, user id, password and name of the initial aspx file.**
4. A report consisting of the following sections - each section should be clearly labeled:
 - How to run the application:
List of Functional requirements (F1, F2, F3 etc...)
 - Screenshot of each functional requirement along with description
 - Screenshot label with name of the web page used (e.g F1: register.aspx)
 - A numbered list of any bugs and/or weaknesses in your program (if you don't think there are any then say so). Bugs (e.g. it always crashes when you try to delete a record) that are declared in this list will lose you fewer marks than ones that you don't declare!
 - A brief (less than half a page) description of any special strength of your application that you think should be taken into account in awarding a mark. Some examples would be use of .ascx files, stored procedures, sql injection prevention, use of components from app_code, AJAX, data table, encryption, cookies, global.asax, email etc..
 - Database design: data dictionary, ERD
 - Listing of user credentials for each Role Type, for example:
 - **Role:** Housekeeper
 - **User name:** jeff
 - **Password:** neptune
 - **URL** to housekeeper home page
 - Configurations setting such as web.config