

Introduction:

Imagine you've just joined a dynamic software development company tasked with revolutionizing the healthcare industry through a cutting-edge Hospital Management Web App. This application, intricately designed on .Net Core for the backend, React for the frontend, and supported by MS SQL Server, is poised to redefine hospital operations.

The sample dataset is also attached.

Assignment Instructions:

1. Usability and Functionality Testing:

- a. Evaluate the user interface for usability and functionality.
- b. Identify and document any issues related to navigation, layout, and overall user experience.
- c. Test critical functionalities such as patient registration, appointment scheduling, and medical record retrieval for accuracy and completeness.

2. Automated Testing

- a. Develop automated test scripts using a suitable testing framework (e.g., Selenium, Jest, NUnit) for key functionalities.
- b. Ensure the automated test suite covers end-to-end scenarios, including user authentication, patient data manipulation, and system notifications.
- c. Submit the automated test scripts along with detailed documentation on test coverage and execution

3. File Import with Form Field Testing:

- a. Test the functionality of file import for patient records, ensuring compatibility with various file formats.
- b. Validate that form fields are correctly populated and linked with the imported file data.
- c. Verify that file imports do not lead to data corruption or loss and that error handling is effective.

4. Performance Testing:

- a. Conduct performance testing to assess the system's responsiveness and scalability.
- b. Measure response times for critical operations under different load conditions.
- c. Identify and document any performance bottlenecks and propose recommendations for improvement.

5. Security Testing:

- a. Perform security testing to identify vulnerabilities in the application.
- b. Test authentication and authorization mechanisms for robustness.
- c. Evaluate data encryption and protection measures.
- d. Provide recommendations for enhancing the overall security posture of the system.

Submission Guidelines:

1. Documentation:

- a. Prepare a detailed document outlining your test plan and methodologies.
- b. Include step-by-step instructions for executing automated test scripts.

2. Code Submission:

- a. Submit the code for automated test scripts.
- b. Ensure the code is well-commented and easy to understand.

3. Feedback and Recommendations:

- a. Provide comprehensive feedback on any issues encountered during testing.
- b. Include recommendations for improvements or optimizations.

Evaluation Criteria:


Your assignment will be evaluated based on the following criteria:

- Thoroughness and completeness of testing.
- Clarity and organization of documentation.
- Effectiveness of automated test scripts.
- Quality of feedback and recommendations.
- Creativity in identifying potential issues.

We look forward to reviewing your submission and discussing your findings in our upcoming interview. If you have any questions, feel free to reach out.

For the Automated testing, go through the following instructions

1. Use this link to access the app:
<https://staging-scweb.arcapps.org/> where username: tester and password: tester2023!,
Province : Lusaka, District : Lusaka, Facility : Dr Watson Dental Clinic



SmartCarePRO
A Ministry of Health SmartCare System

Select Facility

Province *
Lusaka

District *
Lusaka

Facility *
Dr Watson Dental Clinic

[Send Facility Access Request](#)

[Enter](#)

[Logout](#)

- At this screen go to NRC and enter 111111111

Welcome Test User Monday, May 20, 2024

Search or Add New Patient

[Biometrics](#)
[NRC](#)
[NUPN](#)
[Service/Man No.](#)
[Cellphone](#)
[Full Name](#)

11111/1/1

[Q Search](#)

- Click attend to patient

[Q Search](#)

Memory Kunda

Date of Birth	Sex	Cellphone	NUPN	NRC	Mother's Name
6-Apr-1999 (25Y)	Female	+260 977112233	5006-0334C-00003-3	11111/1/1	NimoThabo

[Edit Profile](#)
[Admission](#)
[Assign Queue](#)
[Historical visit](#)
[Attend to Patient](#)

- This should bring you to "Vitals"

Memory Kunda

Date of Birth

6-Apr-1999 (25y)

Sex

Female

Cellphone

+260 977112233

NUPN

5006-0334C-00003-3

NRC

11111/11/1

Mother's Name

Nima Thabo

Select Service for the Patient

Vital

5. To open a new record, click “Add Vital”

Dashboard

Vital

Postnatal (PNC)

Memory Kunda

6-Apr-1999 (25y)

Female

+260 977112233

5006-0334C-00003-3

11111/11/1

Vitals & Anthropometry

Add Vital

Encounter Date	12-May-2024	08-Apr-2024
Vitals Date	12-May-2024	08-Apr-2024
Vital Time	17:44:00	11:26:00
Length (cm)	12	12
Weight (kg)	150	12
BMI	10416.67	833.33
Temperature (c)	37	12

6. This is now the part to automate

Patient Information

Date

20-05-2024

Time

11:42 AM

Weight (kg)

Enter Weight (kg)

Length (cm)

Enter Length (cm)

Temperature (c)

Enter Temperature (c)

Systolic (mmHg)

Enter Systolic (mmHg)

Diastolic (mmHg)

Enter Diastolic (mmHg)

BP Unrecordable

--Select--

Pulse Rate (bpm)

Enter Pulse Rate (bpm)

Respiratory Rate (bpm)

Enter Respiratory Rate (bpm)

Oxygen Saturation (%)

Enter Oxygen Saturation (%)

MUAC

Enter MUAC

MUAC Score

Enter MUAC Score

Abdominal Circumference (cm)

Enter Abdominal Circumference (cm)

Head Circumference (cm)

Enter Head Circumference (cm)

HC Score

Enter HC Score

Note

Enter Note

Close

Save

7. Automate to upload the given sample dataset

Upload your well-tested code in GitHub, make a video using any screen recorder & share with us on the following emails: aninda@excelbd.com; mahdi@excelbd.com; azmin@excelbd.com

NOTE: Please provide clear documentation and a high-quality video so that the team can easily review and test your task.