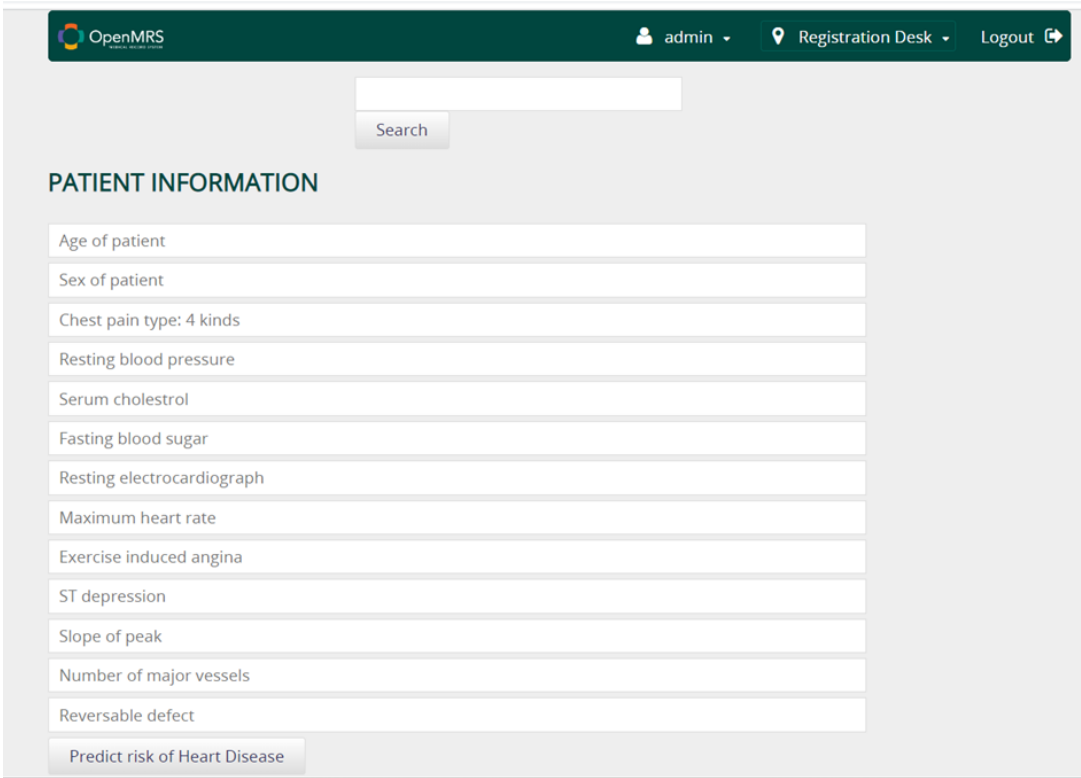
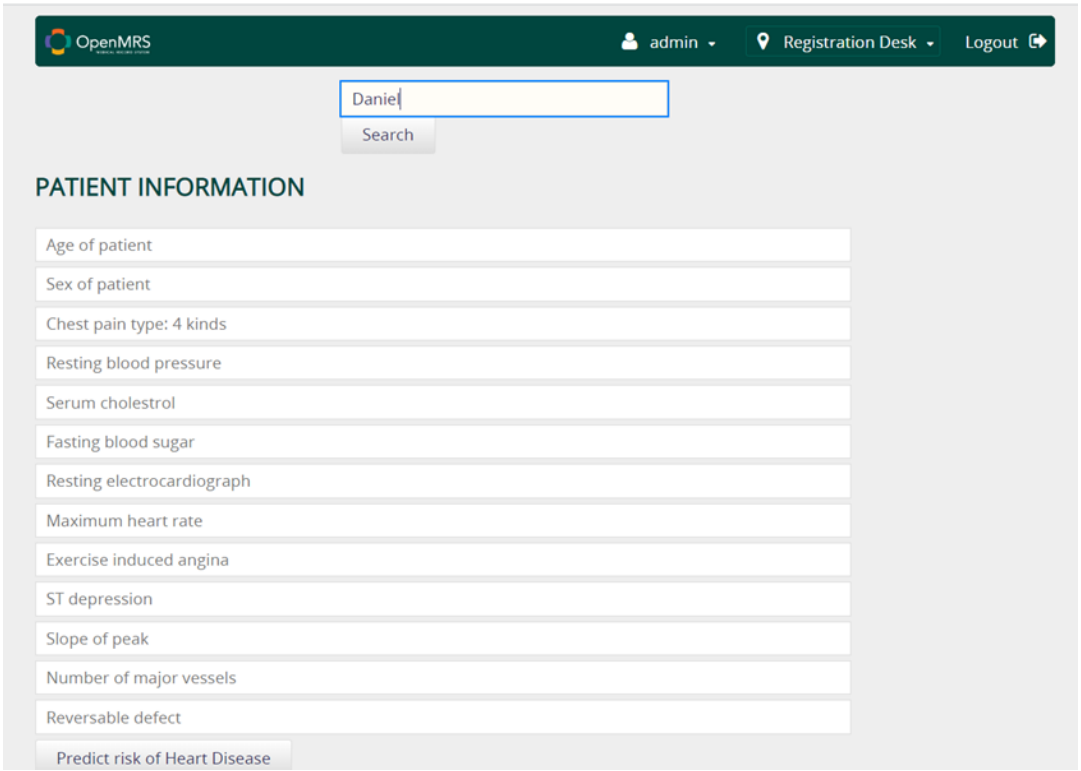


# A Prototype Heart Disease Risk Assessment Tool for the OpenMRS System



The screenshot shows the OpenMRS login interface. At the top, there is a dark green header with the OpenMRS logo on the left, and user information 'admin', location 'Registration Desk', and a 'Logout' button on the right. Below the header is a search bar with a 'Search' button. The main content area is titled 'PATIENT INFORMATION' and contains a vertical list of 14 input fields for patient data: Age of patient, Sex of patient, Chest pain type: 4 kinds, Resting blood pressure, Serum cholestrol, Fasting blood sugar, Resting electrocardiograph, Maximum heart rate, Exercise induced angina, ST depression, Slope of peak, Number of major vessels, Reversible defect, and a 'Predict risk of Heart Disease' button at the bottom.

Step 1: The UI that the user logs in to



This screenshot is identical to the one above, but the search bar now contains the text 'Danie' and is highlighted with a blue border. The rest of the interface, including the header, patient information fields, and the 'Predict risk of Heart Disease' button, remains the same.

Step 2: User can either search for a patient and fill the fields OR enter all the fields manually

OpenMRS admin Registration Desk Logout

Daniel  
Search

### CLINICAL INFORMATION

Daniel Cragg

33  
1  
0  
125  
212  
0  
1  
168  
0  
1  
2  
2  
3

Predict risk of Heart Disease

Step 3: All the fields are filled and Predict Risk of Heart Disease button is clicked

OpenMRS admin Registration Desk Logout

### HEART DISEASE RISK ASSESSMENT RESULTS

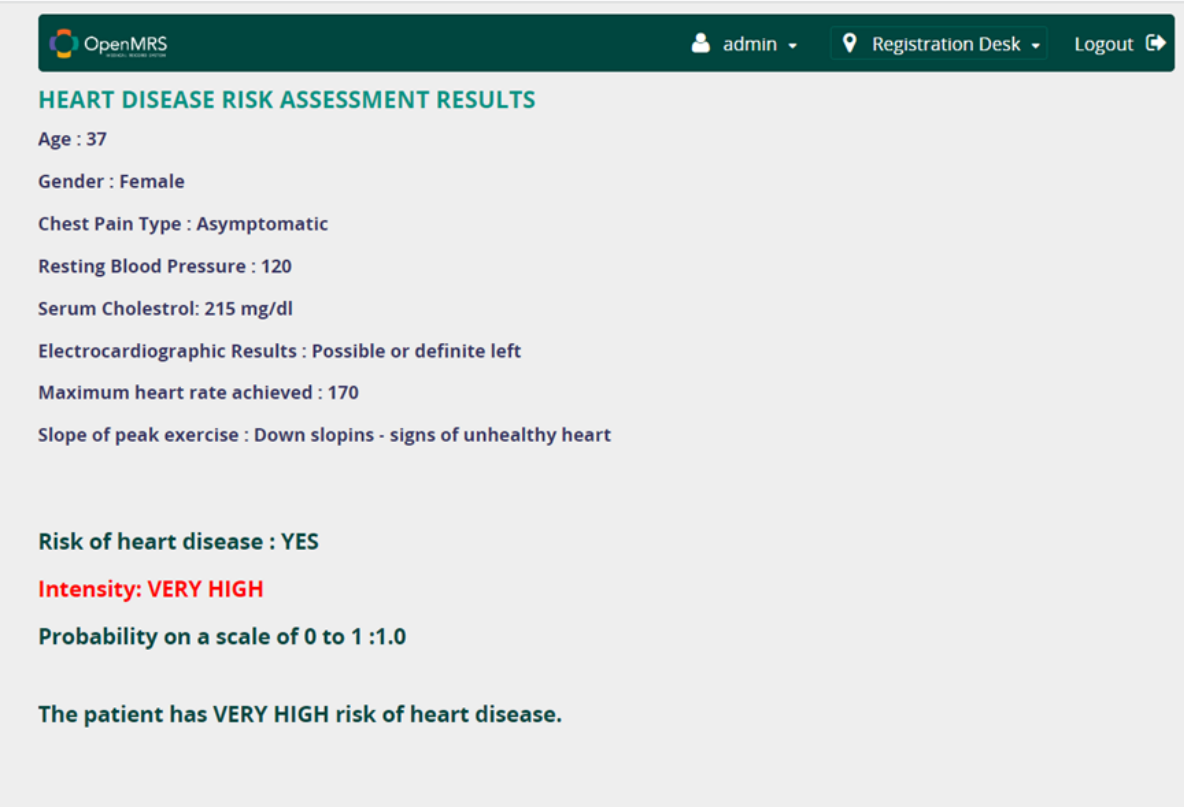
Age : 33  
Gender : Female  
Chest Pain Type : Asymptomatic  
Resting Blood Pressure : 125  
Serum Cholestrol: 212 mg/dl  
Electrocardiographic Results : Possible or definite left  
Maximum heart rate achieved : 168  
Slope of peak exercise : Down slopins - signs of unhealthy heart

**Risk of heart disease : NO**  
**Probability on a scale of 0 to 1 :0.01926853321492672**

**The patient has NO risk of heart disease.**

Step 4: Directs to a Results page that shows a summary of the patient details and the Result whether the person has a heart disease or not

In a case whether the person has a heart disease, it categorises the risk of heart disease into medium, high risk and very high risk and shows a numerical probability of it.



The screenshot shows a web interface for OpenMRS. At the top, there is a dark green header bar with the OpenMRS logo on the left and user information on the right: 'admin' with a dropdown arrow, 'Registration Desk' with a dropdown arrow, and 'Logout' with an external link icon. Below the header, the main content area has a light gray background. The title 'HEART DISEASE RISK ASSESSMENT RESULTS' is displayed in a teal color. The patient's details are listed in a plain black font: Age: 37, Gender: Female, Chest Pain Type: Asymptomatic, Resting Blood Pressure: 120, Serum Cholesterol: 215 mg/dl, Electrocardiographic Results: Possible or definite left, Maximum heart rate achieved: 170, and Slope of peak exercise: Down sloping - signs of unhealthy heart. The risk assessment results are shown in a bold black font: Risk of heart disease: YES, Intensity: VERY HIGH (in red), and Probability on a scale of 0 to 1: 1.0. A final summary statement in bold black font reads: The patient has VERY HIGH risk of heart disease.

**HEART DISEASE RISK ASSESSMENT RESULTS**

Age : 37

Gender : Female

Chest Pain Type : Asymptomatic

Resting Blood Pressure : 120

Serum Cholesterol: 215 mg/dl

Electrocardiographic Results : Possible or definite left

Maximum heart rate achieved : 170

Slope of peak exercise : Down sloping - signs of unhealthy heart

**Risk of heart disease : YES**

**Intensity: VERY HIGH**

**Probability on a scale of 0 to 1 :1.0**

**The patient has VERY HIGH risk of heart disease.**