Very rough Pseudo Code

HTML PSEUDO CODE

BEGIN HTML Document
SET language as English
INCLUDE external CSS file for styling

HEAD SECTION

SET page title to "New Patient Registration | Downtown Dentistry" LINK external CSS styles

BODY SECTION

HEADER

DISPLAY logo

DISPLAY clinic name "Downtown Dentistry"

DISPLAY current date (populated using JavaScript)

FORM ("signup")

SECTION: "Create Patient Account"

INPUT: First Name (text, max length 30, with validation)

INPUT: Middle Initial (text, max length 1, optional)

INPUT: Last Name (text, max length 30, with validation)

INPUT: Date of Birth (date input, with validation)

RADIO BUTTONS: Select Patient's Sex (Male, Female, Non-Binary, Other)

INPUT: Social Security Number (password field with pattern matching)

SECTION: "Patient's Contact Information"

INPUT: Address 1 (text)

INPUT: Address 2 (text, optional)

INPUT: City (text)

DROPDOWN: State selection (multiple options)

INPUT: Zip Code (text, with validation)

INPUT: Email (text, with pattern validation)
INPUT: Phone Number (text, with formatting)

CHECKBOXES: For various symptoms/conditions TEXTAREA: To describe symptoms if needed

SECTION: "Urgency of Visit"

SECTION: "Patient's History"

INPUT: Range Slider (1 to 10 scale)

SECTION: "Finish Creating Patient Account"
INPUT: Username (text, with validation)

INPUT: Password (password, with validation)

INPUT: Confirm Password (password, with validation)

FORM BUTTONS

BUTTON: Submit form BUTTON: Reset form BUTTON: Review form

BUTTON: Validate form inputs

FOOTER

DISPLAY contact information with link

INCLUDE external JavaScript file for form logic END HTML Document

JAVA PSEUDO CODE

BEGIN JavaScript

FUNCTION DisplayCurrentDate()
GET current date
FORMAT date to locale string
SET element with id "today" to display formatted date
END FUNCTION

FUNCTION InitializeRangeSlider()
GET slider element
SET output element to display slider value
ON slider input change
UPDATE displayed value
END FUNCTION

FUNCTION ValidateFirstName()
GET value of element "fname"
IF value is empty
DISPLAY "First name cannot be empty" in error element
RETURN false

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ELSE IF value contains invalid characters
  DISPLAY "Invalid characters" in error element
  RETURN false
 ELSE IF length < 2 OR length > 30
  DISPLAY appropriate length error in error element
  RETURN false
 ELSE
  CLEAR error message
  RETURN true
END FUNCTION
FUNCTION ValidateLastName()
 GET value of element "Iname"
 PERFORM similar checks as ValidateFirstName()
END FUNCTION
FUNCTION ValidateMiddleInitial()
 GET value of element "minit"
 CONVERT value to uppercase
 IF not empty AND value does not match single letter pattern
  DISPLAY "Middle initial must be a single uppercase letter" in error element
  RETURN false
 ELSE
  CLEAR error message
  RETURN true
END FUNCTION
FUNCTION ValidateDateOfBirth()
 GET value of element "dob"
 CONVERT value to Date
 CHECK if date is in the future
 CHECK if date is more than 120 years ago
 IF invalid
  DISPLAY appropriate error message
  CLEAR value of "dob"
  RETURN false
 ELSE
  CLEAR error message
  RETURN true
END FUNCTION
FUNCTION ValidateSSN()
 GET value of element "ssn"
 APPLY regex pattern for SSN validation
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IF pattern does not match
DISPLAY error message
RETURN false
ELSE
CLEAR error message
RETURN true
END FUNCTION

FUNCTION ValidateAddress1()
GET value of element "address1"
IF length < 2
DISPLAY error message
RETURN false
ELSE
CLEAR error message
RETURN true
END FUNCTION

FUNCTION ValidateCity()
GET value of element "city"
IF empty
DISPLAY "City cannot be left blank"
RETURN false
ELSE
CLEAR error message
RETURN true
END FUNCTION

FUNCTION ValidateZipCode()
GET value of element "zcode"
REMOVE non-numeric characters
IF empty OR length != 5
DISPLAY "Invalid zip code" message
RETURN false
ELSE
CLEAR error message
RETURN true
END FUNCTION

FUNCTION ValidateEmail()
GET value of element "email"
APPLY regex pattern for email
IF pattern does not match
DISPLAY error message

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RETURN false
 ELSE
  CLEAR error message
  RETURN true
END FUNCTION
FUNCTION ValidatePhoneNumber()
 GET value of "phoneNumber"
 REMOVE non-numeric characters
 FORMAT phone number
 DISPLAY formatted number
END FUNCTION
FUNCTION ValidateUsername()
 GET value of "uname"
 CONVERT value to lowercase
 PERFORM checks for length, starting character, valid characters
 IF invalid
 DISPLAY error message
  RETURN false
 ELSE
  CLEAR error message
  RETURN true
END FUNCTION
FUNCTION ValidatePassword()
 GET values of "pword" and "uname"
 CHECK password for length, character types, no match with username
 DISPLAY error messages if any
END FUNCTION
FUNCTION ConfirmPassword()
 COMPARE "pword" and "cpword"
 IF not matching
 DISPLAY "Passwords do not match"
  RETURN false
 ELSE
  CLEAR error message
  RETURN true
END FUNCTION
FUNCTION ValidateEverything()
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FUNCTION ValidateEverything()
SET valid flag to true
CALL all validation functions

IF all are valid
ENABLE submit button
ELSE
DISPLAY alert box
END FUNCTION

ATTACH event listeners to form inputs and buttons

END JavaScript