Saarang 2016
Indian Institute of Technology, Madras

Web Operations
Frontend
Problem Statement

INSTRUCTIONS :

1. Solve as many questions as possible. Each question tests your skill in one aspect. Solve as many sub-questions as Possible. Do not hesitate to

2. Answer each question separately and name the files as specified. All files must be compressed into one **.zip** file named "RollNumber_Name_SubDepartment.zip"and uploaded in the portal.

3. Deadline for submission of applications is **23:59, Friday, 23rd May**. Interviews will be held for the shortlisted candidates.

4. Try to use a **Linux environment. Ubuntu** is recommended.

5. If you have any doubts or queries, contact us at:
   Deepak Padamata – 9789107938 , deepak@saarang.org

6. **Resources:**
   - W3Schools
   - CodeAcademy
   - CodeSchool
   - If all else fails, try googling.
     Someone has probabaly faced your problem already.

7. Good Luck!

Part 1 - Answer the following questions:

1. What do you think are the drawbacks of the Saarang 2015 website and [app](app)?

2. How do you think you can improve on the present website and [app](app)?
   You can contribute an improvement to an existing feature or
   suggest a new feature.

3. Your credentials (any past work you have done as part of a team or
   any work related to Web/Mobile Operations).

Part 2 - Solve the following problems

For the next questions, you need to know the basics of HTML, CSS and
JavaScript which can be learnt from the links provided.

1. **Form Alerts:**
   Make a form for registration on a website in HTML, CSS and Javascript.
   For registration incorporate the following fields
   (all the checks should happen when the submit button is clicked) :
- First Name
  - Should not be empty
- Last Name
  - Should not be empty
- Phone Number
  - Should have exactly 10 digits
  - Should have no alphabet or other special characters
- Email
  - Should contain a "at-the-rate" (@) followed by a "dot" (.)
  - There should be at least one character followed by a at-the-rate followed
    by at least 1 more character followed by a dot
    followed by at least 2 characters
- State (dropdown)
  - Only be able to choose one of these options
  - Bonus points to have a box such that while typing the dropbox
    will change with only relevant options
- Password field
  - At least 6 characters
- Confirm Password Field
  - Exact same content as Password

If an error occurs:
• Make the input field red (the border red)
• Show a line of text next to the field mentioning the error(s) in that field
    • Bonus: show a bootstrap 'alert' next to the text field

If there are no errors:
    • Change the button to be unclickable and show a green button saying "Submitted successfully"
    • Clear the present form data.
• **The form should look good and aesthetically pleasing.**

    Note : Bonus points adding CSS3 styles to the form
            Bonus points for doing this with Bootstrap or any other framework.
            Bonus points for making the form responsive (the form should rearrange itself to fit the browser size)
            Bonus points for doing validation with angularJS (you have to store all user data in a model)

2. Make a loading animation using the saarang logo.
    • Download the required files from [here](#)
    • Make an infinite animation using the logo – one suggestion is to spin each arc about the centre.
    • If you go for a spinning logo, make it such that each arc in the logo spins independent of the others.
    • Add a button to the page which when clicked, should fade out the animation and logo.
    • No more specifics, so unleash your creativity!

    Note: Bonus points for doing the spinning animation using only CSS3