

Non-functional Testing

1) Security:

- We had kept a feature that if any user is not logged in then he/she cannot view the dashboard, coursePage and other features of our app.

```
// instructor authentication
app.post("/login/instructor",passport.authenticate("local",
{failureRedirect: "/login2/instructor",successRedirect: "/dashboard/instructor",}),
(req, res) => {}
);
```

- If the user is a student then he/she cannot view the features provided by the instructor directly without logging into the system as an instructor.

```
// student login
app.post("/login/student",passport.authenticate("local", {
failureRedirect: "/login2/student",successRedirect: "/dashboard/student",
}
));
```

Here the student will go to studentDashboard only allowing him to access the student level functionalities.

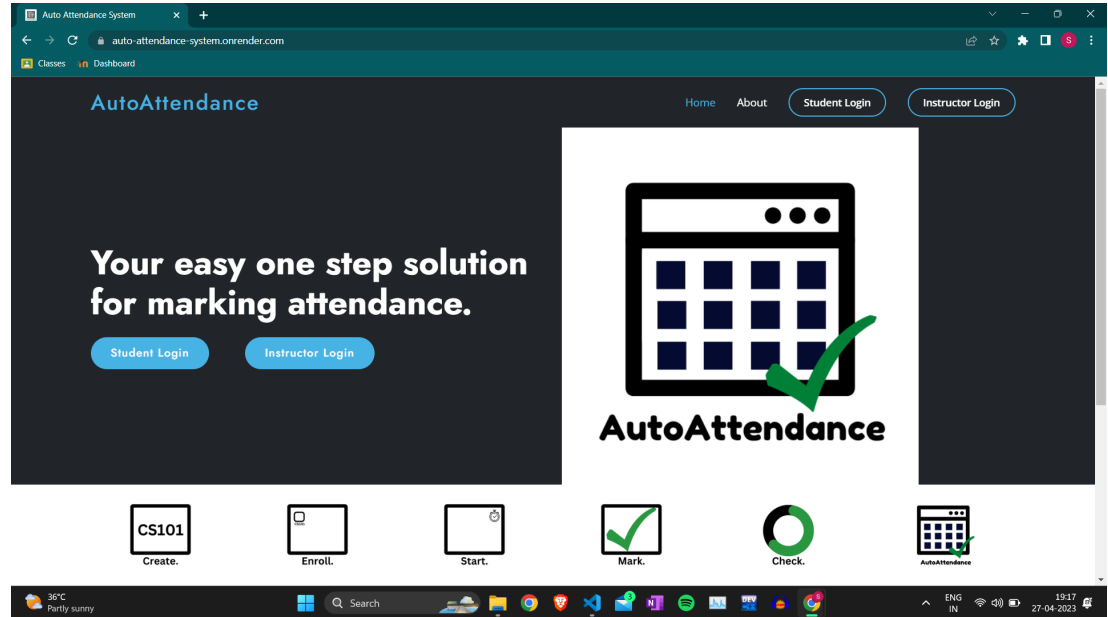
- If any user enters an invalid URL then the user will be directly redirected to the error page.
- While for students marking the attendance if any student who will enter the invalid URL will not be able to mark the attendance.
- If the student enters who is not registered in a course but then also tries to mark the attendance in a course then he/she cannot mark the attendance.

```
//Active attendances
Complexity is 5 Everything is cool!
app.get("/markAtt/:studentEmail", async (req, res) => {
  if (!req.user) {
    res.redirect("/");
  } else {
```

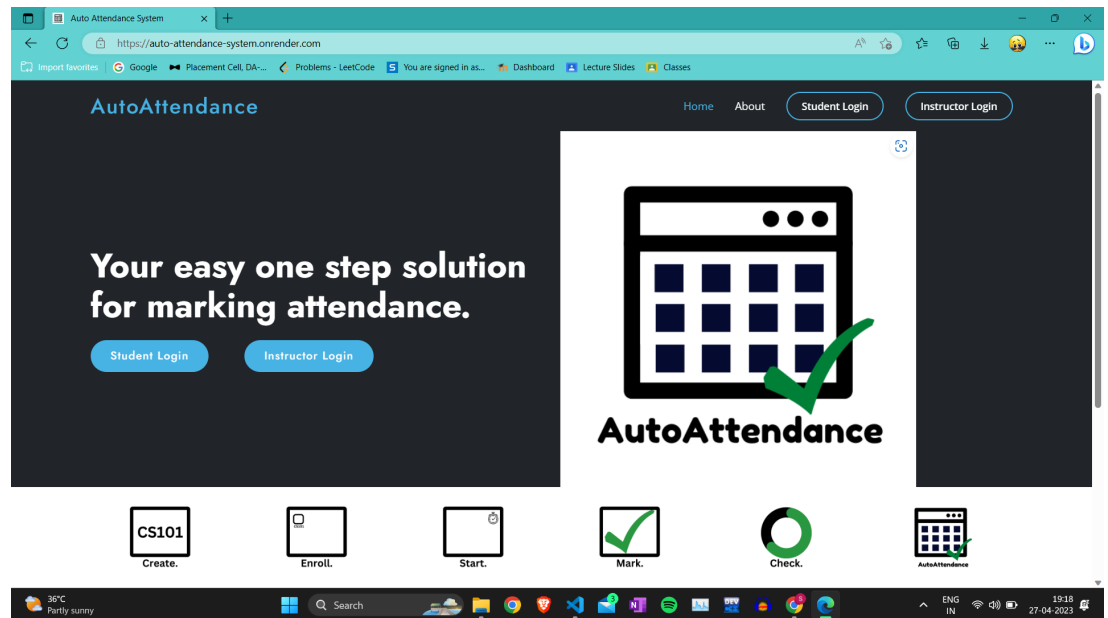
- Here if user is not defined and authorized, he/she won't be able to mark attendance and will be redirected to the homepage (login page).

2) Compatibility and Portability:

- After deploying we checked in two particular browsers namely google chrome and microsoft edge and it is working correctly in both the browsers.
- Google Chrome:



- Microsoft Edge:

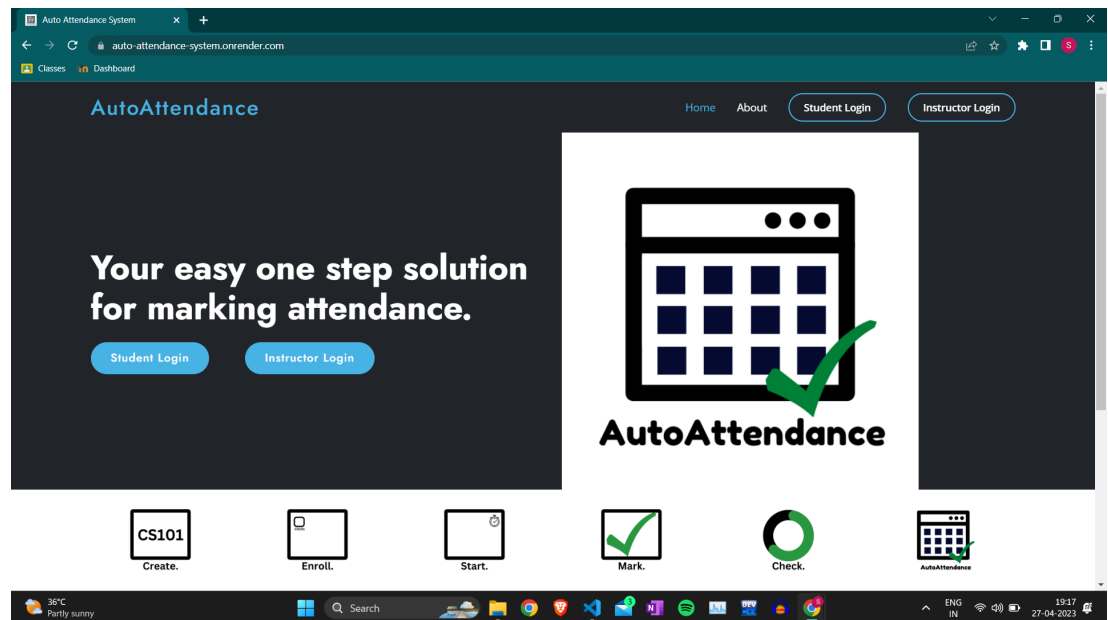


3) Availability:

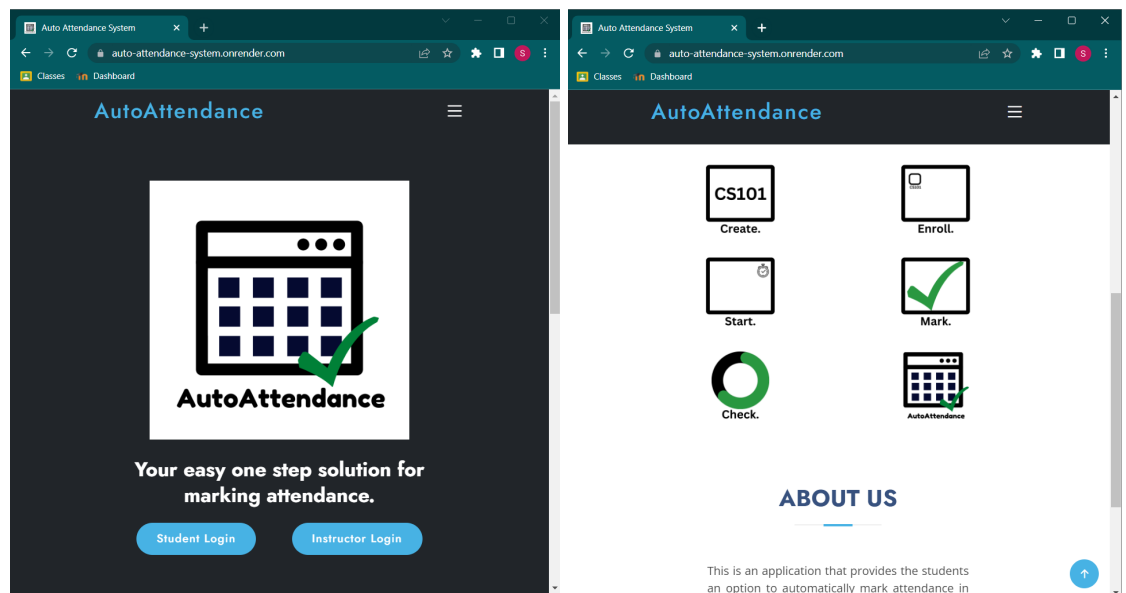
- For deploying our website 24 x 7, we have used the free service *Render*.

4) Localization:

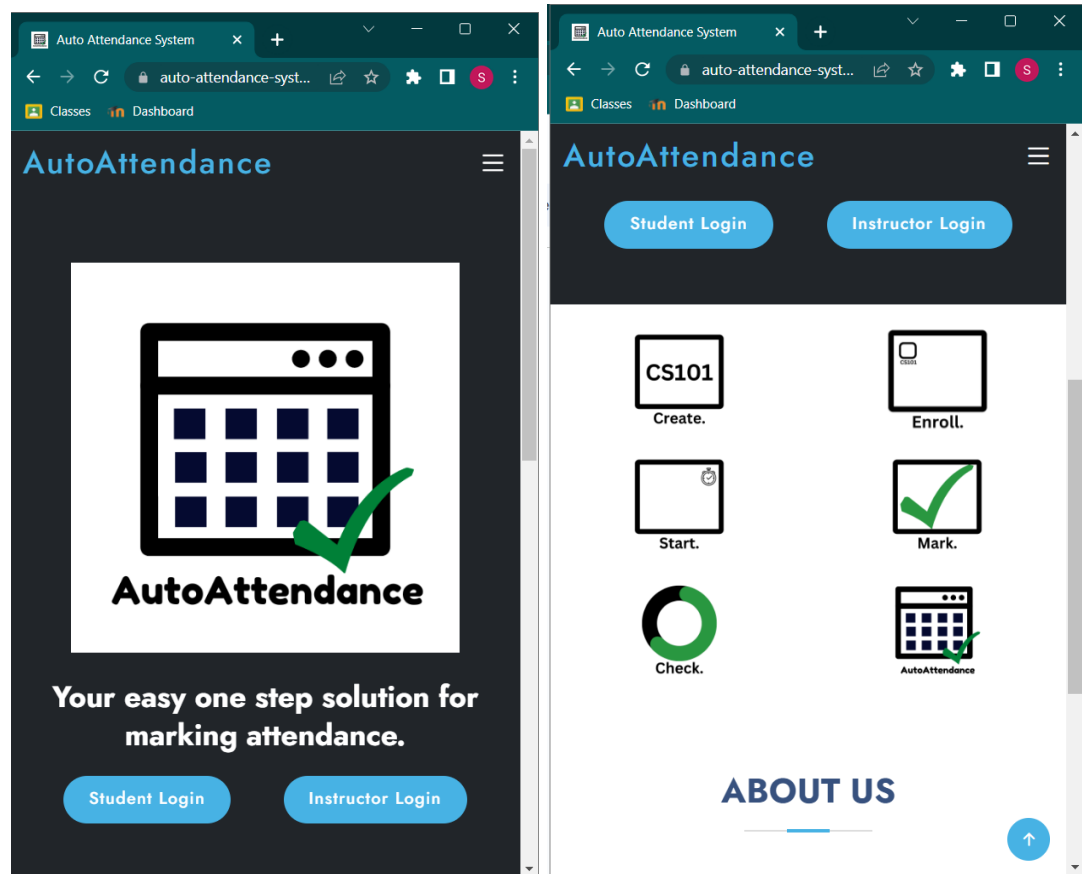
- Our website is highly responsive for all sizes of screens and below we have shown the PC, tablet and phone view for our website.
- Desktop view



- Tablet View



- Phone View



5) Usability:

- Our website is easy to use for any kind of user.
- Learnability is also assured at most of the pages

A screenshot of the "Create Account" form. The form has fields for "First name", "Last name", "Email address", "Password", and a dropdown menu currently showing "student". Below the fields are four bullet points: "The length of password should be between 8 and 15.", "The password should not contain any space.", "The password should have atleast one small letter and atleast one capital letter.", and "The password should have atleast one special character." At the bottom is a blue "Create Account" button and a link "Have an account? Go to login".

- Visibility is also ensured in both student and instructor dashboards.

