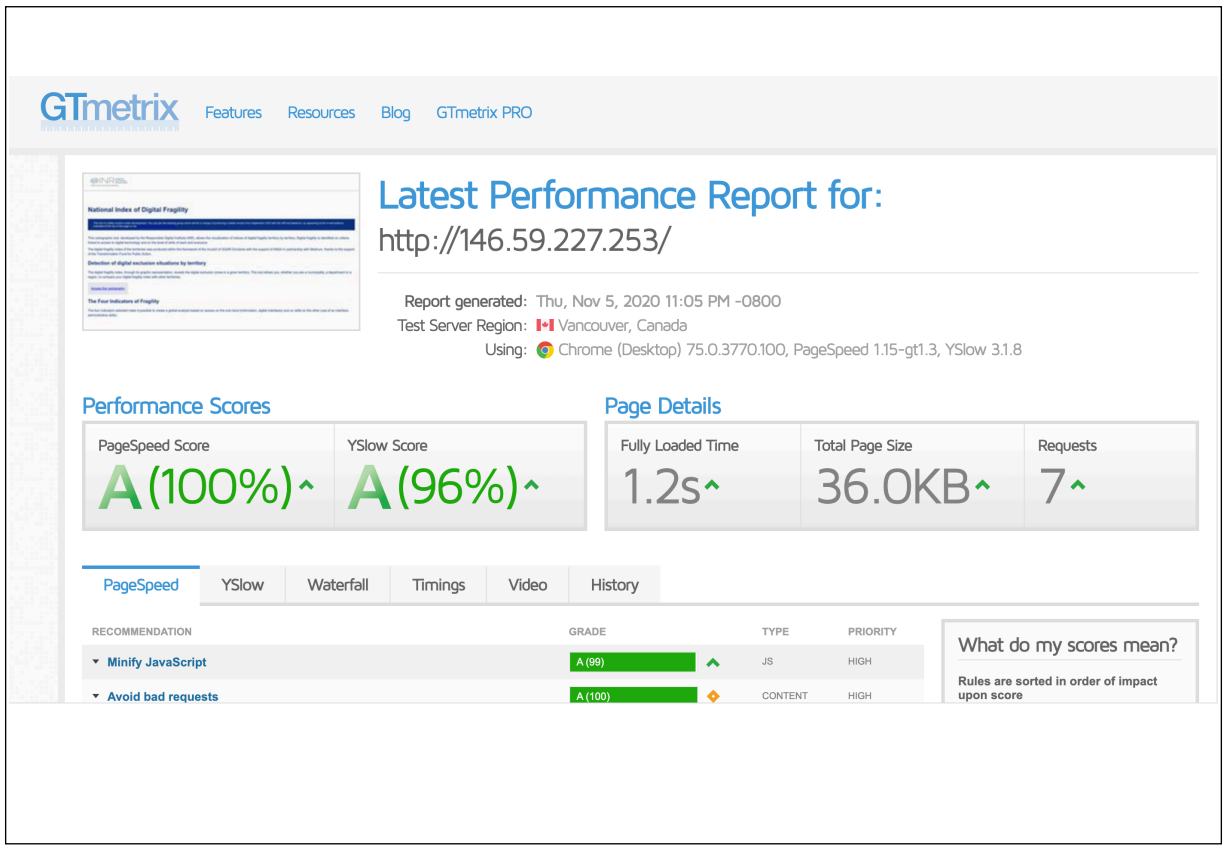
SYNTHESE DU PROJET CHALLENGE DESIGN4GREEN 2020 REPORT

Numéro d'équipe / Team Number : 62

GT MTERIX

SCORE (PageSpeed Score) : 100% (only percentage)
SCREENSHOT (with Day and time)

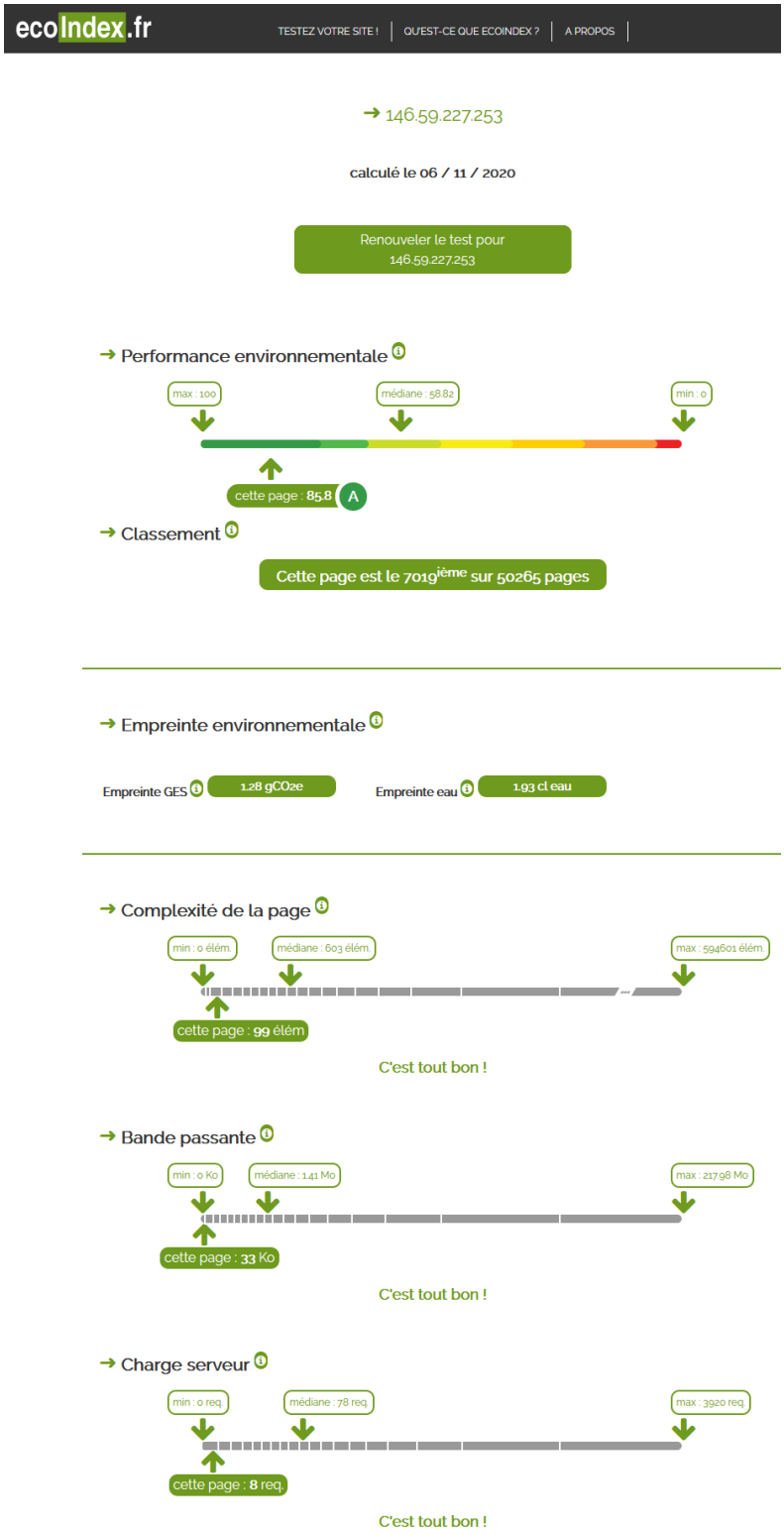
GTMatrix_Home 2020-11-06 at 12.36.09 PM



ECOINDEX

SCORE (Performance environnementale / Environmental performance) : 85.8/100
SCREENSHOT (with Day and time)

ECOINDEX-Home-6-Nov-2020-11-30AM-IST

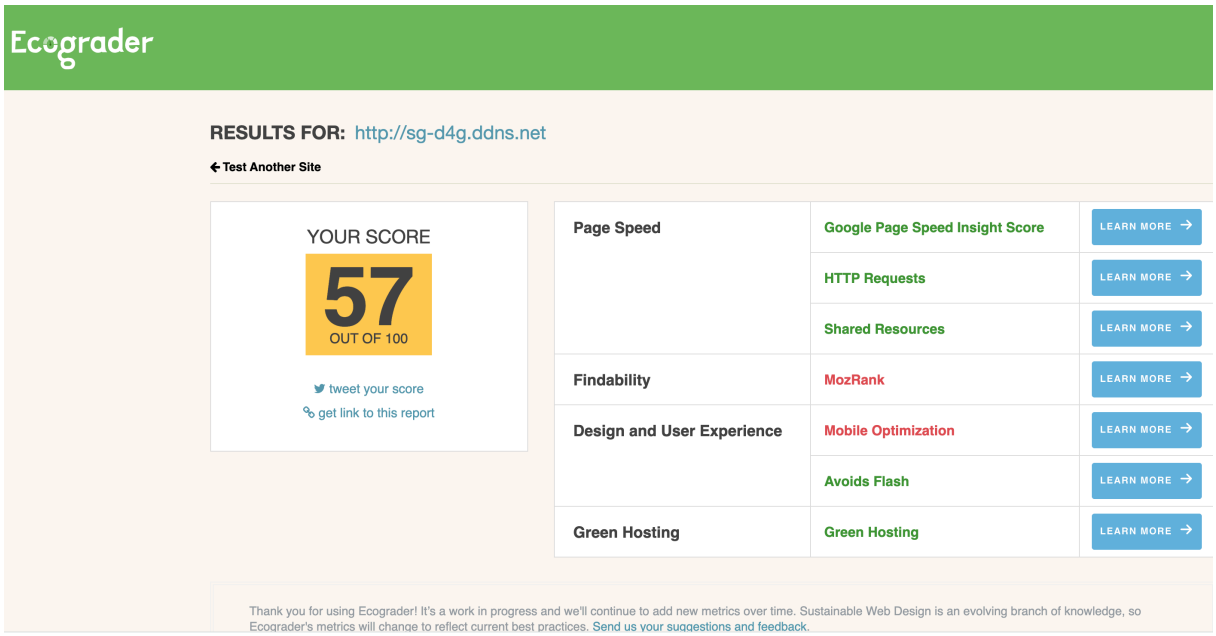


ECOGRADER

SCORE : 57/ 100

SCREENSHOT (with Day and time)

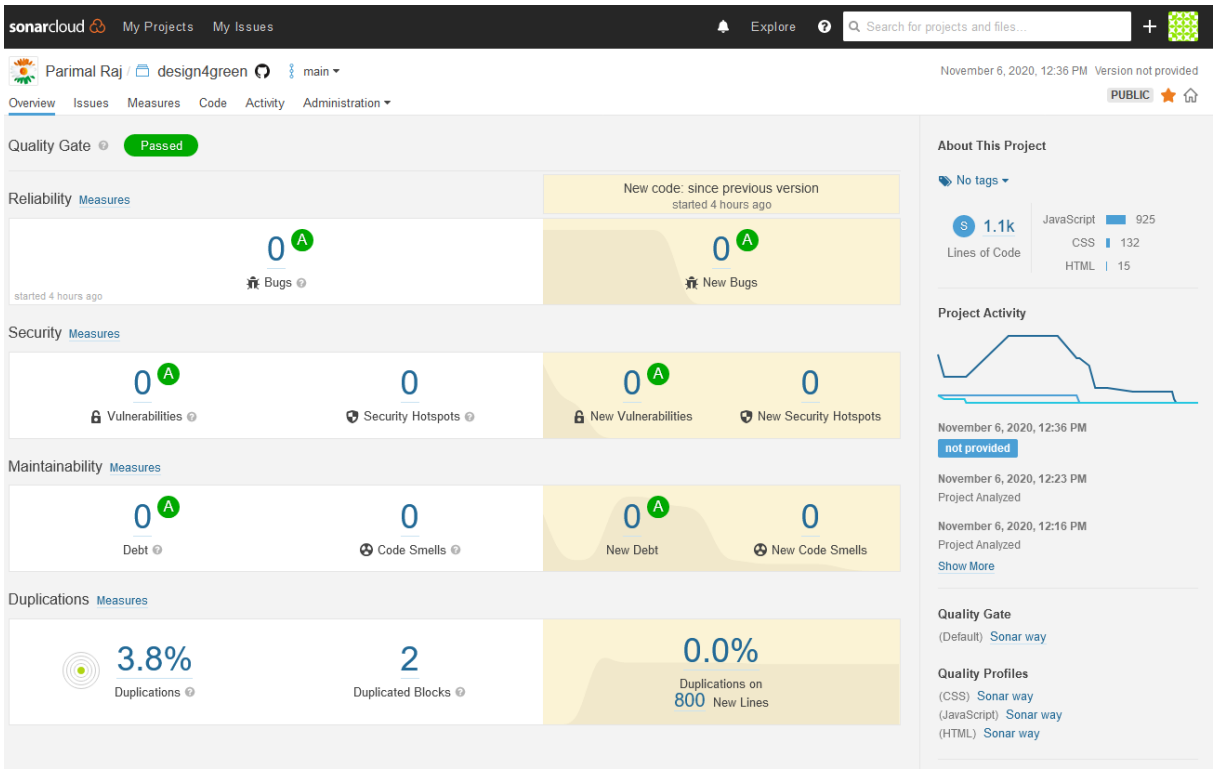
EcoGrader_Home_2020-11-06 at 12.39.32 PM - IST



SONARQUBE

GITHUB URL : https://github.com/0xApp/design4green

SonarQube-Analysis-6-Nov-2020-11-30AM-IST



Conception générale - General conception

Avez-vous réussi à finaliser votre projet ? Did you manage to finish your project ?
Yes

Si non, pourquoi et quels éléments sont manquants ? if not, why and what is missing ?

PDF generation is not completed, done with remaining functionality.

Conception technique - Technical conception

Quel langage avez-vous choisi et pourquoi ? which language did you use and why ?

We have used client side rendering approach.

Frontend:- we have used Preact library which is very light weight 3KB alternative to react, with this we are able to achieve smaller builds. We have also used React-Virtualized library which helped in rendering huge data in the table without any performance lag. We have also achieved code splitting, gzip compression, minification of js and css resources and image optimisation through production build.

API and DB:- We have used node js as backend api technology as it is a very good solution to handle asynchronous request/response handling using non-blocking IO approach. We have also implemented compression api responses which drastically improved the response speeds.
For database we have chosen SQLlite, which is in memory database, this turned out to be a great choice in terms of query performance.

Comment avez-vous optimisé vos requêtes ? How did you optimize the query ?

We have followed paginated query approach using which the requests can be configured to return specific amount of records using page indices. We have also written optimised database with minimal relations and returning only required columns based on selected filters. This combined with infinite loader in frontend ensured smooth data loading with minimal overhead.

Conception fonctionnelle – Functional conception

Avez-vous choisi d'utiliser un outil de représentation graphique ? Did you us a graphical representation ? **No**

Si oui pourquoi ? if yes, why ?

Si non pourquoi ? if not Why ?

Not able to implement this feature due to time constraint.

Design

Expliquez en quelques mots les choix réalisés au niveau du design du site? Explain your design choices ?

We have followed eco friendly design approach with minimal styles and easy navigation, loading data only required for the user to see instead of fetching entire data at once. We have used node js which is non blocking asynchronous I/O request for fast api responses and SQLlite db for high query performance.

Accessibilité

Qu'avez-vous mis en place pour le respect de l'accessibilité du site? How did you manage the accessibility of your site ?

We have used recommended aria labels with which we achieved decent accessibility scores.

QUESTIONS GÉNÉRALES – GENERAL QUESTIONS

Qu'est ce qui fait que votre site est éco-conçu? Why your solution is ecodesign ?

Due to below factors our solution is a ecofriendly application:-

We have ensured minimal build sizes with code splitting by using preact.
We have not used any external css libraries.
Enable compression:-
Reduce the size of files sent from your server to increase the speed to which they are transferred to the browser.
Reduce sizes of pages by up to 70%
Increased page speed
Cost-benefit ratio: high
Access needed to the .htaccess files or server administration files

All the scores given by multiple tools (ecoindex, GTMetrix, EcoGrader etc.) are very good which clearly shows the ecodesign of our application.

Avez-vous d'autres remarques pertinentes sur votre projet ? others comments on your project ?