



Department of Information Technology

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UNIVERSITY OF MUMBAI

Academic Year 2020-2021

A Project Report on
An Interactive Web Framework to Know Your Foot Health

Submitted in fulfillment of the degree of
Bachelor of Engineering(Sem-8)
in

INFORMATION TECHNOLOGY

By

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Under the Guidance of

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1. Project Conception and Initiation

1.1 Abstract

- In today's modern era people are suffering from many acute conditions and diseases which are never heard of many a times people also get joints pain or fractures due to some disease or accidents happening eventually, considering your legs as vital function in your day today activities it's really important and sensitive to take care of foot problems one might be facing due to any accident or disease.

1.1 Abstract

- For such conditions which are severe and should be brought into light for treatment is one of the purpose the company to develop the website which will post information related to foot conditions, symptoms, treatment and prevention which will be medically reviews by physiotherapists and then will be uploaded to this website to make people aware of possible injuries to be coming and how to avoid them.

1.2 Objectives

- To develop a blog and product advertisement website for foot health/physiotherapy product based company.
- To develop fully fledged, functional and dynamic website for organization.
- To integrate 3D models for demonstration of foot conditions.
- To develop remote assessment using 3D model and forms.
- To provide with an easy to post content and product advertisement website

1.3 Literature Review

- The current websites related to foot health lacks some or other functionality which we will be incorporating inside our website which solely focus on providing foot problems, their symptoms, treatment and prevention alongside with product designed to company to help identify physiotherapists the foot problem one might be facing and coming up with solid solutions to help tackle those problems.
- Currently websites providing this information doesn't have appropriate product to be introduced to patients which will help for their foot treatment while this side will be having number of product ranges which will be used by physiotherapists to help tackle the problem.
- For instance, consider foot.com where information is introduced on foot conditions which is quiet minimal information to be posted considering a medical condition.

1.3 Literature Review

- Also it will be more informative for patients to understand when information will be broken down into much detail by already masters in this field which are the doctors associated with organization who will be providing with much of a detail view and information related to conditions and also accurate treatments or prevention's to be posted.
- This website would also include the product, it's use and nearby physiotherapists to users location which use this technology to treat their patients.

1.3 Literature Review

- The proposed 3D models in can be used to integrate in website for foot conditions but we will try to incorporate our 3D foot model which will be interactive and responsive and will also give information regarding the pain area on model which will be responsive as user clicks on foot region where he/she feels pain and then it will pop up with the article showcasing what kind of condition it is and may redirect to related article where its cause, treatment and prevention must be posted Embedding 3D models inside website will not only help in better understanding but also will give a broad overview about what can possibly happen when one ignores the foot conditions they might be facing.

1.4 Problem Definition

- The development of foothealth website is considered regarding the increasing foot pain conditions ,symptoms and treatments regarding foot.
- Normal patients as well as athletes suffer a lot of foot injuries which gets worsen with time because of improper attention or treatment and ignoring behaviour towards the condition. Even the shoes you wear if are not comfortable to you can cause foot injuries or fractures which can sustain lifetime.
- For such conditions which are severe and should be brought into light for treatment is one of the purpose the company to develop the website which will post information related to foot conditions, symptoms, treatment and prevention which will be medically reviews by physiotherapists and then will be uploaded to this website to make people aware of possible injuries to be coming and how to avoid them.

1.5 Scope

- One may face problem recognizing the causes of their foot problems ,the symptoms associated with them and also possible treatment which might help solve foot problems.
- Many a times wearing wrong fit shoes or footwear can cause some serious heel and forefoot pain which only gets worsen by time if not treated.
- For this we are developing foothealth a website which will brief many patients regarding their conditions, symptoms and possible treatment.

1.6 Technology stack

- Django
- MySql
- HTML
- JavaScript
- CSS
- Editor
- Three.js

1.7 Benefits for environment & Society

- Our website can help those people who are suffering from foot pain or diabetes through the articles and blogs uploaded in the website which is verified by the professional Physiotherapist.
- With implementation of 3d model UI in our website any user can understand the issues related to his or her health and the awareness about that foot health issues can be created by knowing about that that issue with the help of our website.

2. Project Design

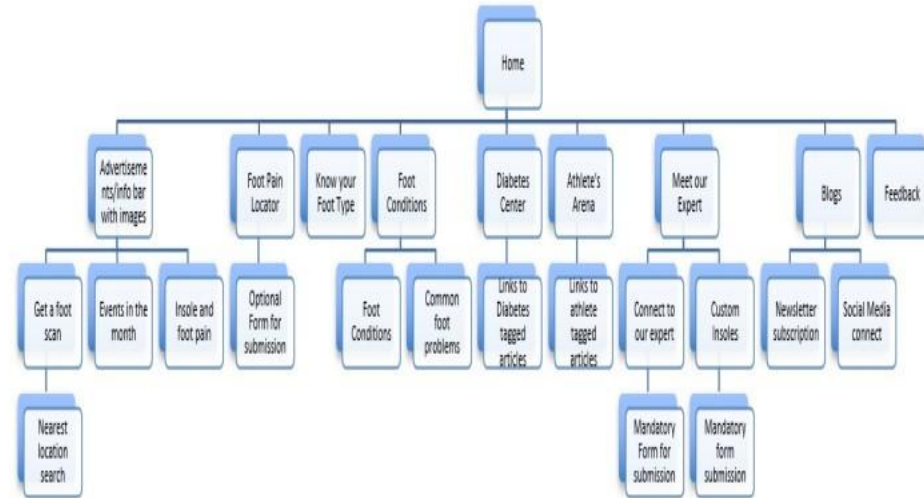
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2.1 Proposed System

- Linking to pages within the site will be at several places as per individual page layouts for.e.g. Get a foot scan would appear as a banner(link) on many pages

External links to Amazon, Flipkart, social media may also appear as banners/buttons and links to them

External links to Stepp test or OHm3000 (www.ohmsmat.com) can also be provided



2.1 Proposed System

Administrative panel

Access control

- ☐ Content manager (CM)
- ☐ Site administrator (SA)
- ☐ Access to customer forms, feedback databases (Gen)

Content addition (CM)

- ☐ Advertising panel(top of home page)
 - ☐ Organization of ads (3/5).
 - ☐ Store all old ads
 - ☐ First to view on opening home page

2.1 Proposed System

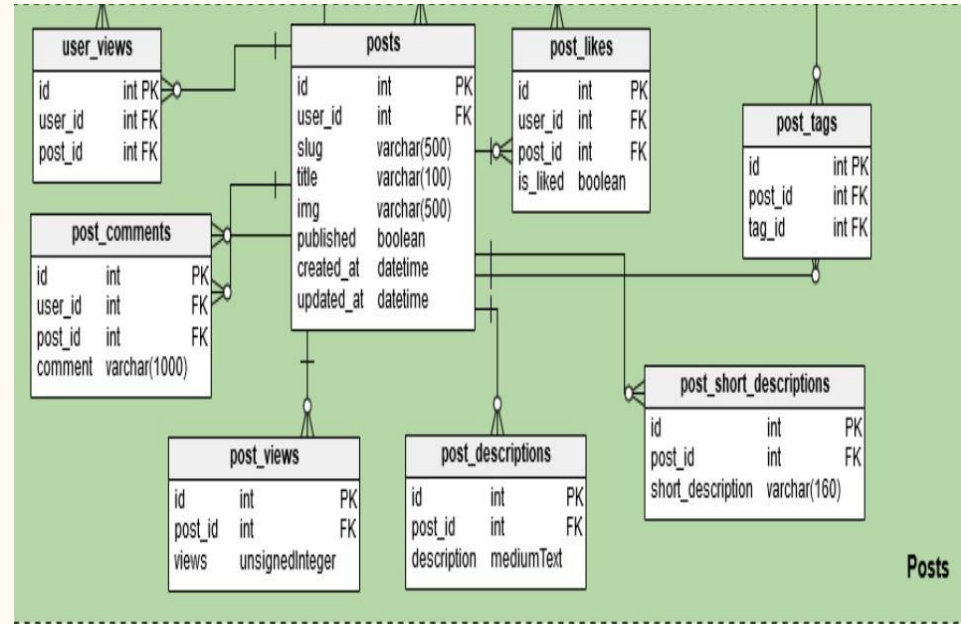
- ☐ Add new articles (**many tags need to be created so that they can be cross referenced**)
 - ☐ In foot conditions and common foot problems
 - ☐ In diabetes center
 - ☐ In athletes corner
- ☐ Add new blog articles
 - ☐ Organization of blog articles (which one first etc)
- Edit external links – e-com, social media etc (SA)
- ☐ Cross linking social media (SA)

2.1 Proposed System

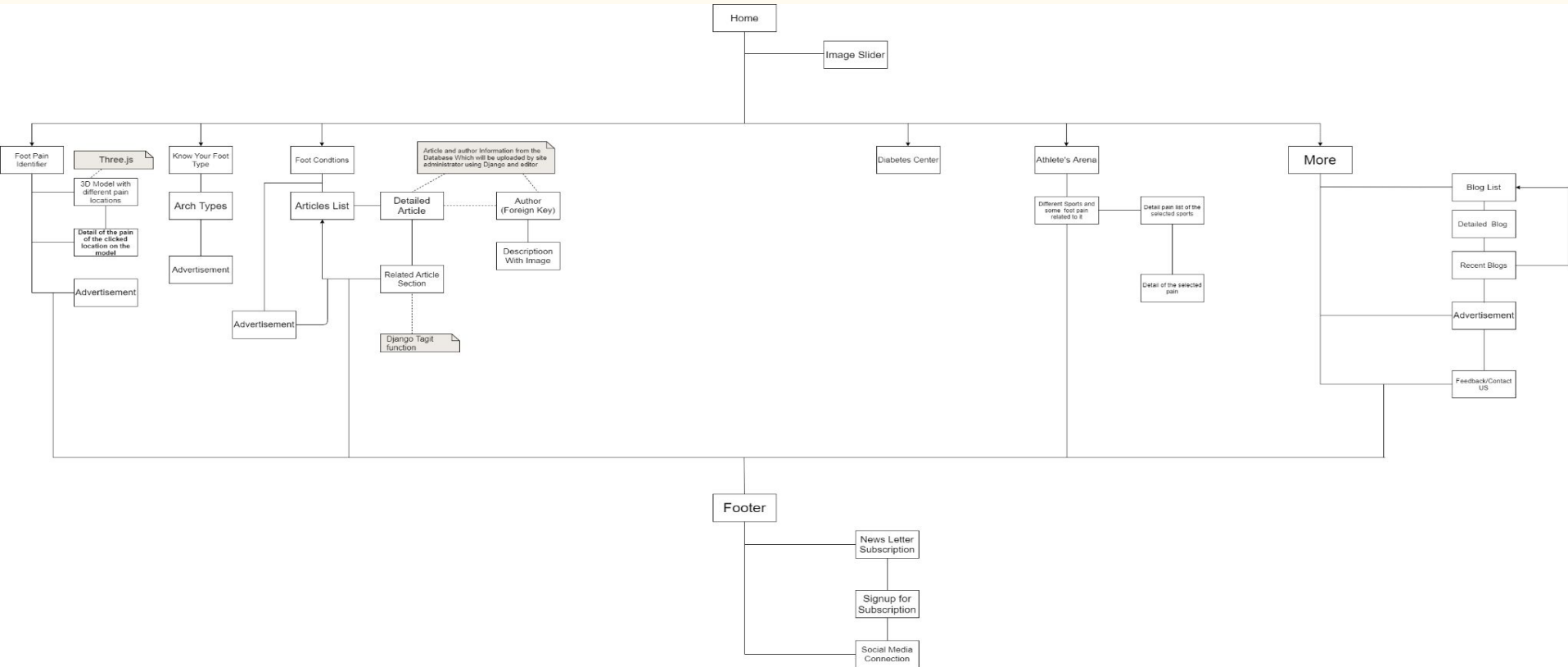
- Edit forms, articles and blogs, newsletters (SA)
- Edit Images in articles (change) (CM)
- Add new branch on home page (SA)
- Add new branch on sub pages (SA)
- Newsletter service management (Gen)
- Security and Privacy policies (SA)

2.1 Proposed System

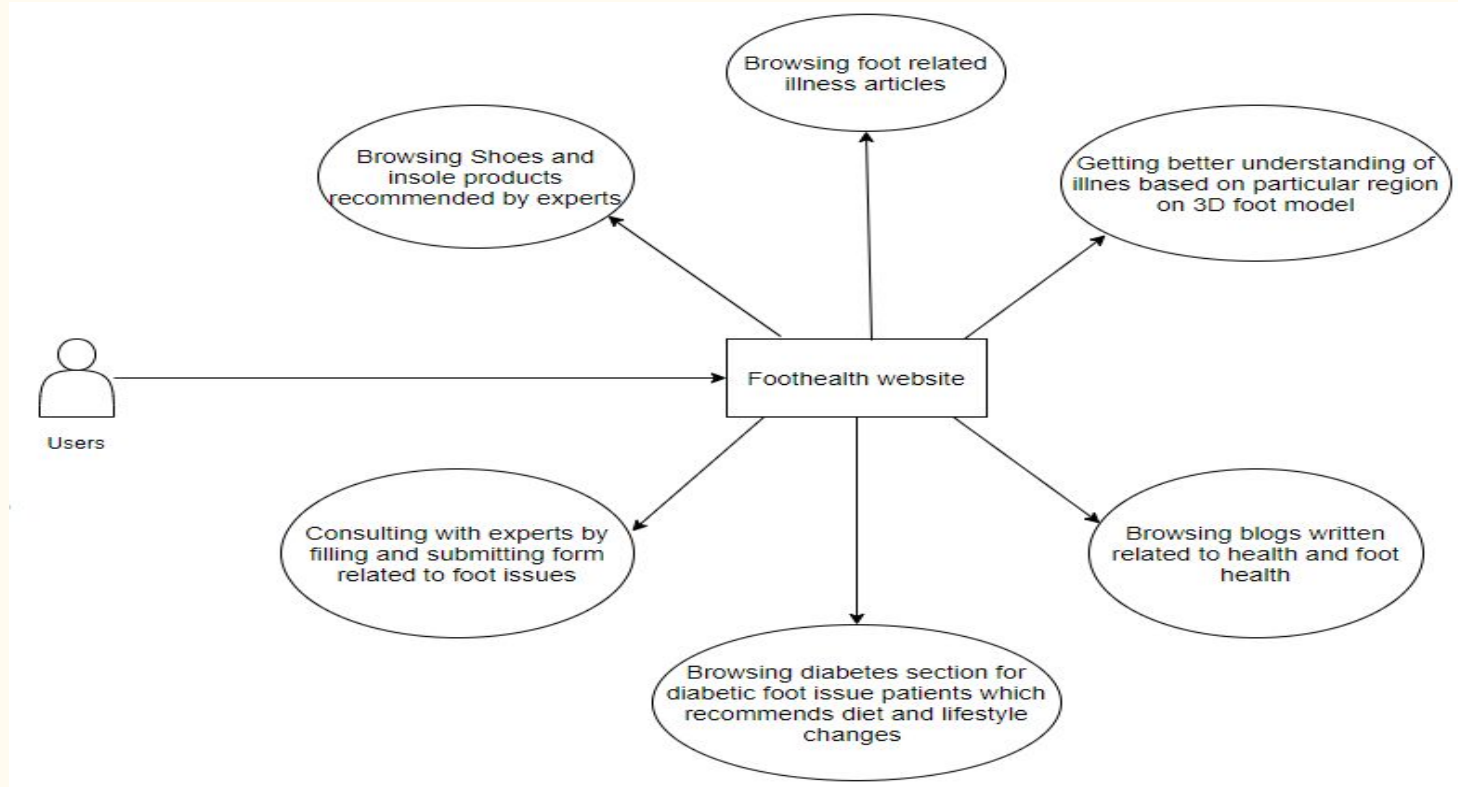
This fig is a reference database for blogs or articles to be posted on website which includes different constrains for storing post information as well as its retrieval and view to be reflected on site. The whole website database will also be designed subsequently as the website development progresses further.



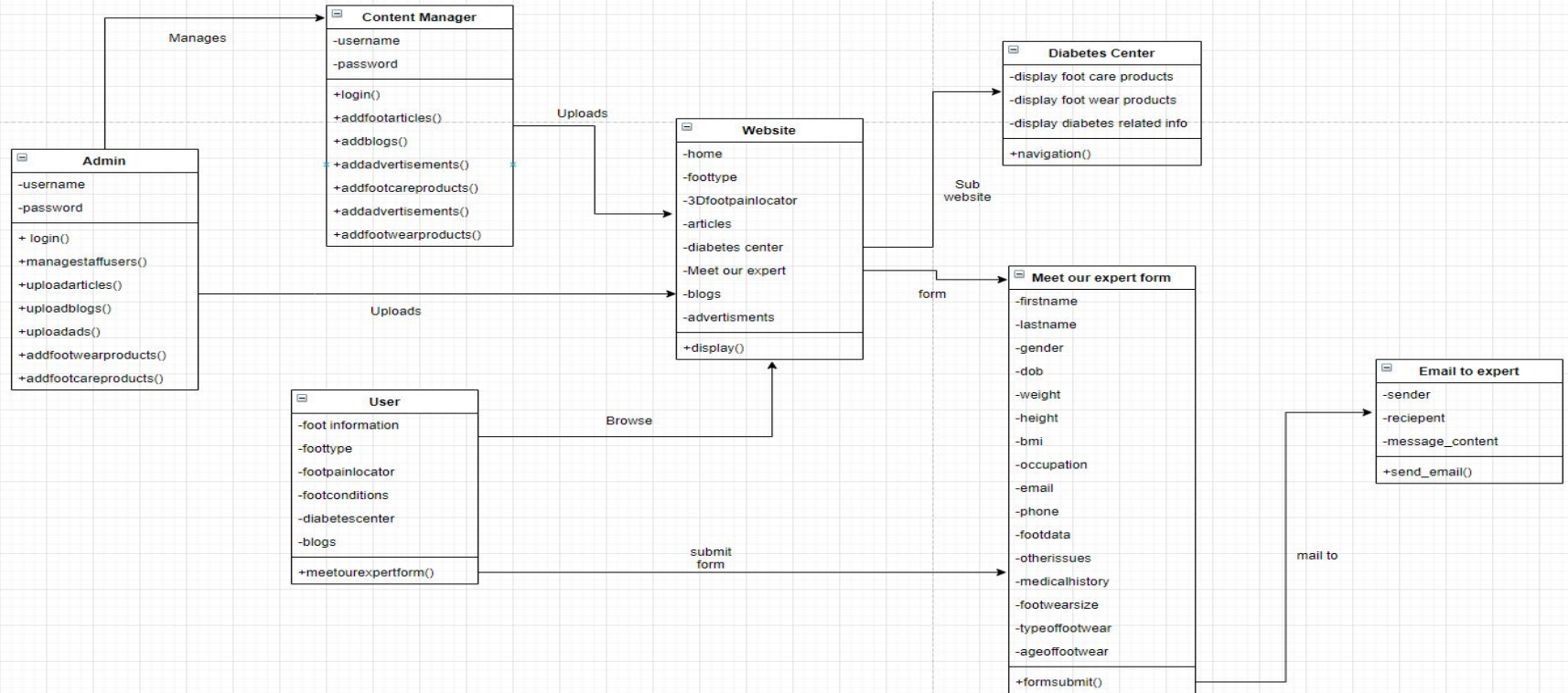
2.2 Design(Flow Of Modules)



2.3 Description Of Use Case



2.4 Class Diagram



2.5 Module-1

Home Page



Module-2

Know your foot type page

FOOTHEALTH WEBSITE FOR A M x Foothealth x +

127.0.0.1:8000/FootType/

FootHealth.in

Home | Foot Pain Identifier | **Know Your Foot Type** | Foot Condition | Blog | Meet Our Expert | More...

Not sure about Arch Type?

If your answer is yes then you should know your foot type

Knowing your foot type will tell you a lot about your foot health. Unless our feet hurt, we don't pay attention to our feet or what type of footwear we wear. If we know our foot type, and how it may affect us then it becomes easy to treat and prevent serious injuries.

Arch

Medically reviewed by **Dr. Neha Sawant** on August 15, 2017 — Written by Dr. Neha Sawant Research Associate, MPT (Neuro)

Medically reviewed by **Dr. Jude Dsouza (PT)** — Written by Dr. Jude Dsouza Research Associate Masters in Neurophysiotherapy (Adult and Pediatric conditions, AIIPMR, Haji Ali Mumbai)

Click Here

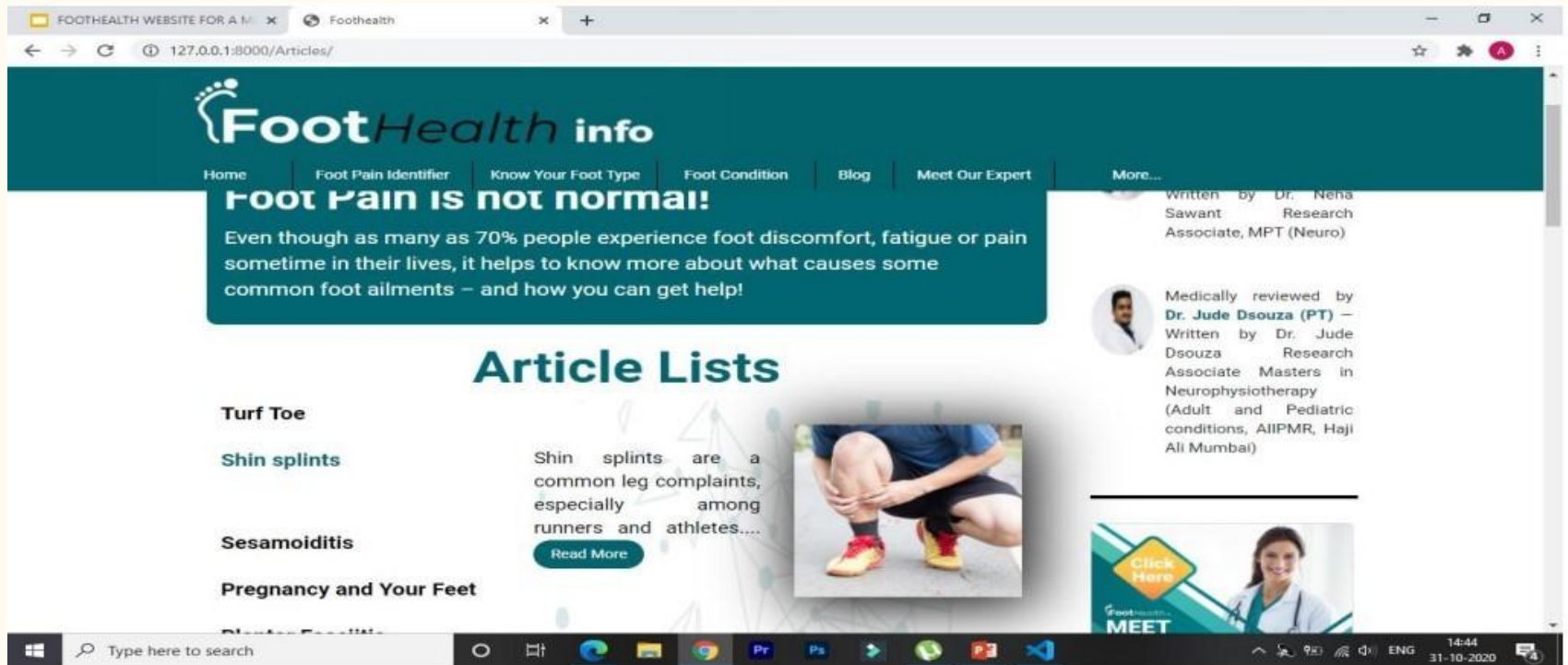
127.0.0.1:8000/FootType/

Type here to search

14:43 31-10-2020

Module-3

Foot Conditions page



The screenshot shows a web browser window displaying the 'FootHealth info' website. The browser's address bar shows '127.0.0.1:8000/Articles/'. The website has a teal header with the logo and navigation links: Home, Foot Pain Identifier, Know Your Foot Type, Foot Condition, Blog, Meet Our Expert, and More....

Foot Pain is not normal!
Even though as many as 70% people experience foot discomfort, fatigue or pain sometime in their lives, it helps to know more about what causes some common foot ailments – and how you can get help!

Article Lists

- Turf Toe**
- Shin splints**
Shin splints are a common leg complaints, especially among runners and athletes....
[Read More](#)
- Sesamoiditis**
- Pregnancy and Your Feet**

On the right side, there is a section for medical review and writing by Dr. Jude Dsouza (PT), Research Associate, Masters in Neurophysiotherapy (Adult and Pediatric conditions, AIIPMR, Haji Ali Mumbai). Below this is a 'Click Here' button and a 'MEET' button next to a photo of a woman.

The Windows taskbar at the bottom shows the search bar with 'Type here to search' and various application icons. The system clock indicates 14:44 on 31-10-2020.


Module-4

Detailed Article page

FOOTHEALTH WEBSITE FOR A M x Foothealth

127.0.0.1:8000/Articles/shin-splints/


☆ 🌟 A ⋮




Home | Foot Pain Identifier | Know Your Foot Type | Foot Condition | Blog | Meet Our Expert | More...

Shin splints


Introduction



Shin splints are a common leg complaints, especially among runners and athletes. They present with pain in the front or inner region of the lower leg due to repeated overuse of the muscles. The pain develops gradually as a dull ache on the Shin (at the knee) after running or walking with no history of trauma.




Medically reviewed by **Neha Sawant** on July 20, 2020 — Written by Neha Sawant Research Associate, MPT (Neuro)

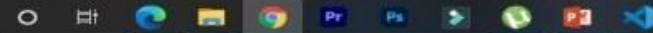


Medically reviewed by **Dr. Jude Dsouza (PT)** — Written by Dr. Jude Dsouza Research Associate Masters in Neurophysiotherapy (Adult and Pediatric conditions, AIIPMR, Haji Ali Mumbai)

Click



Type here to search



14:45
31-10-2020

ENG

Module-5


Blog List page

FOOTHEALTH WEBSITE FOR A M... x Foothealth x +

127.0.0.1:8000/Blogs/

FootHealth info


Home | Foot Pain Identifier | Know Your Foot Type | Foot Condition | **Blog** | Meet Our Expert | More...



Swati Suvarna

Work From Home Diaries: Muscle release ..


Sitting in front of a computer every day can wreak havoc on your body. A




Swati Suvarna

Evidence Based Practice in Physiotherap..

We are constantly hearing about Evidence Based Practice (EBP)



Medically reviewed by **Dr. Neha Sawant (PT)** on August 15, 2017 —
Written by Neha Sawant
Research Associate, MPT (Neuro)



Medically reviewed by **Dr. Jude Dsouza (PT)** —
Written by Dr Jude Dsouza
Research Associate Masters in Neurophysiotherapy (Adult and Pediatric conditions, AliIPMR,Haji Ali Mumbai)

Type here to search

14:43 31-10-2020

Module-6

Detailed blog page


FOOTHEALTH WEBSITE FOR A M... x Foothealth

127.0.0.1:8000/Blogs/work-home-diaries-muscle-release-techniques-while-working/

FootHealth info

Home | Foot Pain Identifier | Know Your Foot Type | Foot Condition | Blog | Meet Our Expert | More...

Work From Home Diaries: Muscle release techniques while working



Sitting in front of a computer every day can wreak havoc on your body. A study published in Journal of Pain Research in 2019 reports that the "Health Promotion Model" that includes regular stretching can help reduce neck and shoulder pain and they also state that regular breaks to stand and stretch increases work productivity. Not only is the pain & tension reduced, but those flexibility breaks allow your eyes to rest and your entire body to feel more comfortable.

Type here to search

15:20 31-10-2020

Module-7

Meet our experts page

FOOTHEALTH WEBSITE FOR A.M. x Foothealth x +

127.0.0.1:8000/MeetOurExpert/

FootHealth.in

Home | Foot Pain Identifier | Know Your Foot Type | Foot Condition | Blog | **Meet Our Expert** | More...

Meet Our Experts

Step 01 Register

Step 02 Mark your pain points

Step 03 Share more about you

Step 04 Submit

Click Here

Medically reviewed by **Dr. Neha Sawant** on August 15, 2017 — Written by Dr. Neha Sawant Research Associate, MPT (Neuro)

Medically reviewed by **Dr. Jude Dsouza (PT)** — Written by Dr. Jude Dsouza Research Masters in Neurophysiotherapy (Adult and Pediatric conditions, AIIPMR, Haji Ali Mumbai)

127.0.0.1:8000/MeetOurExpert/

Type here to search

14:43 31-10-2020

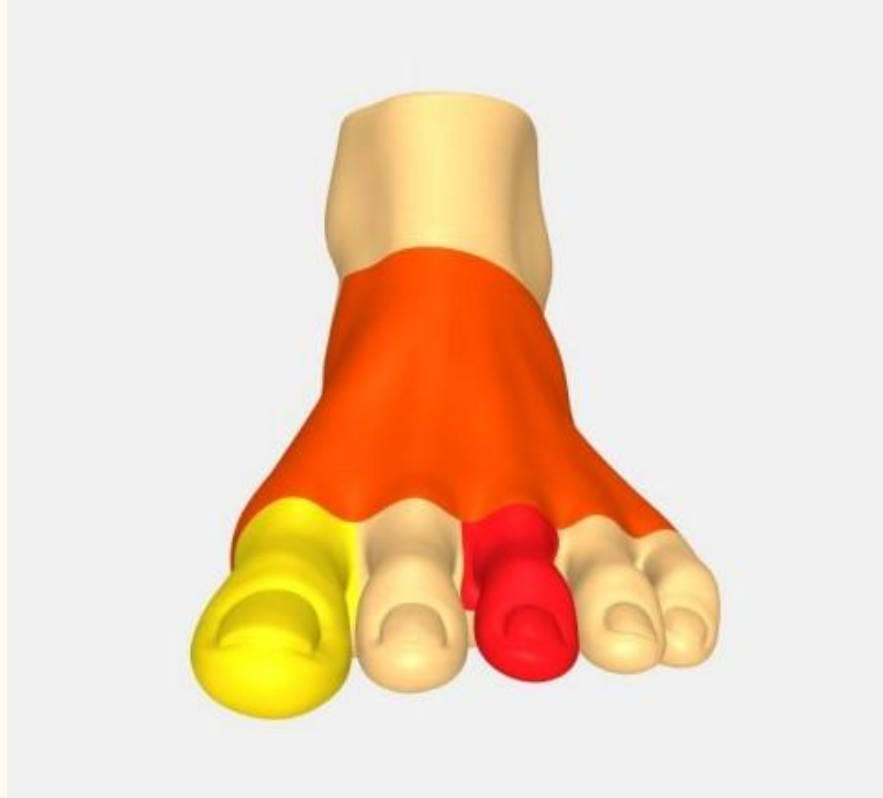
Module-8

Foot pain locator page



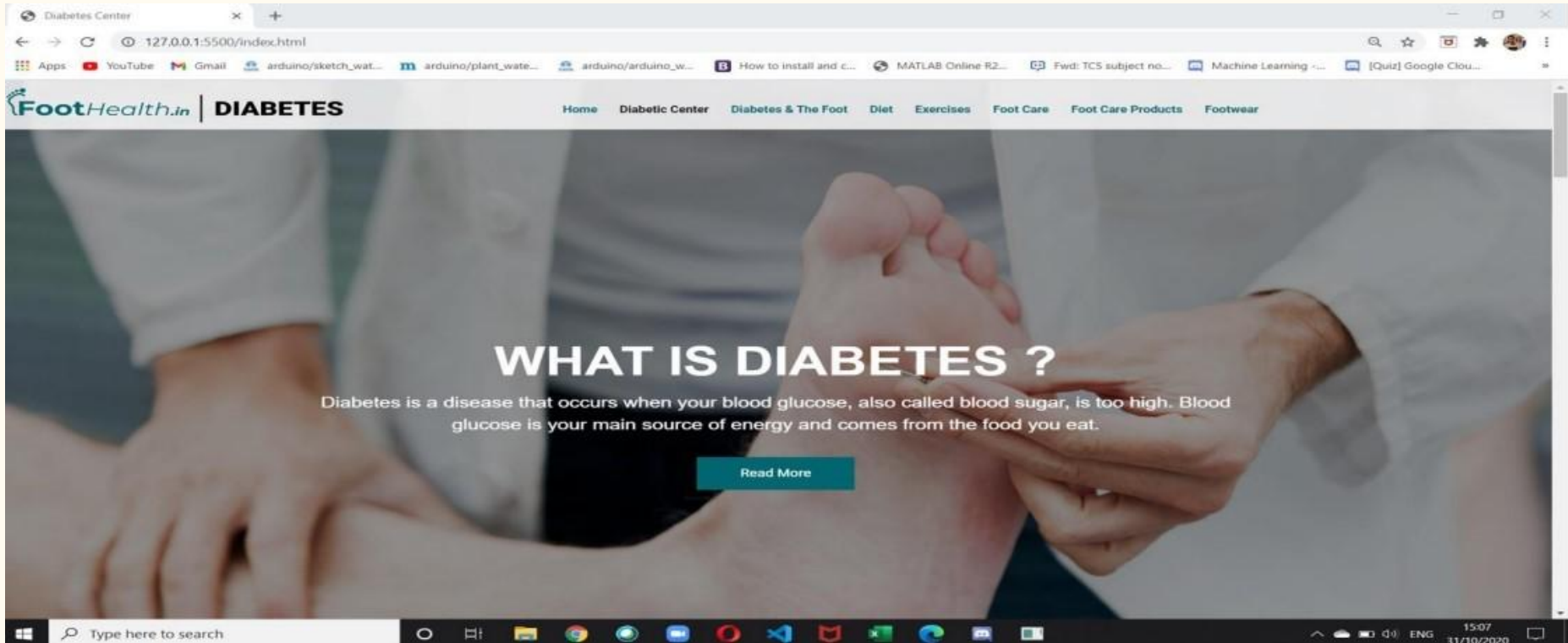
Module-9

Foot Pain regions for form



Module-10

Diabetes Center Page



The screenshot shows a web browser window displaying the 'Diabetes Center' page of the 'FootHealth.in' website. The browser's address bar shows the URL '127.0.0.1:5500/index.html'. The website's header includes the 'FootHealth.in' logo and the word 'DIABETES'. A navigation menu contains links for 'Home', 'Diabetic Center', 'Diabetes & The Foot', 'Diet', 'Exercises', 'Foot Care', 'Foot Care Products', and 'Footwear'. The main content area features a large image of a person's foot being examined by a healthcare professional. Overlaid on this image is the text 'WHAT IS DIABETES ?' in large, bold, white capital letters. Below this, a smaller paragraph states: 'Diabetes is a disease that occurs when your blood glucose, also called blood sugar, is too high. Blood glucose is your main source of energy and comes from the food you eat.' A teal button labeled 'Read More' is positioned at the bottom of this text block. The Windows taskbar is visible at the bottom of the screen, showing various application icons and the system clock indicating 15:07 on 11/10/2020.

Diabetes Center

127.0.0.1:5500/index.html

Apps YouTube Gmail arduino/sketch_wat... arduino/plant_wate... arduino/arduino_w... How to install and c... MATLAB Online R2... Fwd: TCS subject no... Machine Learning <... [Quiz] Google Clou...

FootHealth.in | DIABETES

Home Diabetic Center Diabetes & The Foot Diet Exercises Foot Care Foot Care Products Footwear

WHAT IS DIABETES ?

Diabetes is a disease that occurs when your blood glucose, also called blood sugar, is too high. Blood glucose is your main source of energy and comes from the food you eat.

Read More

Type here to search

15:07 11/10/2020

2.6 References

1. <https://www.healthline.com/health/meniscus-tears>
2. <https://www.drscholls.com/symptoms-and-conditions/foot/>
3. <https://developer.biodigital.com/>
4. <https://ckeditor.com/ckeditor-4/>
5. <https://threejs.org/>

3. Conclusion and Future Scope

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Conclusion

With the above proposed technology stack and proposed architecture we can implement this website on the public domain of the company where different users or clients of the company can visit the website for the queries related to their foot health and the company can post the blogs and different articles related to the foot health as a site administrator. Users can get to know about the products of the company through the site. Users can also use self assessment form to get guidance from medical about foot problems.

Thank You

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