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Augmented E-commerce: Making Augmented Reality Usable in Everyday E-commerce with Chatbot Integration

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Abstract: Rendering covering objects in such some way that user will customize them as per there would like. Rendering 3D objects is even tougher on 2G/3G network information measure because the size of objects is sort of massive. So, to attain the target for same, implementation of second pictures rendering in 3D canvas of ThreeJs.

With the event of science and technology, among the strategy of drawing sketch has been regenerate from hand-painted to lighting tricks, the speed of constructing sketches and 3D model has been greatly improved. However, it's still the because of image sketch of digital graphic presentation, although the assembly technique has been greatly reduced, but in between the householders and styler's among the look technique of communication and mutual agreement stage continues to be a retardant, so the householders and styler's among the look of the communication technique, some way to use WebGL sharing and agreement once the strategy of but the WebGL can effectively shorten the design method, will become an important analysis topic. This study will use WebGL based three.js as a result of the core technology of the system construction, interior vogue is easy and simple interactive surroundings, through a web based virtual house simulation system, the designers and homeowners|homeowners} exploitation constant WebGL with constant interface then trying to find the appliance of this technique in cooperation with each other designers and owners of feedback. the advantages and disadvantages of the system and thus the present modelling computer code area unit mentioned.

More into user centric aspect added the AI enabled chatbot system, which provide more ease to E-commerce platform and give quick results to user.

keywords: WebGL, 3D/2D Rendering Objects, ThreeJs, Blender, Chatbot, AI, ReactJS

INTRODUCTION:

In the past decade loads of research has been targeted on E-commerce platform sweetening by understanding would love and importance of it. The concentrate computer game and increased reality is evolving, as a finish in event with E-commerce platform. The objectives of increased reality is not only to produce sweetening with regard to user friendliness but to boot permits user to have top of the range of immersion and improve experience with loads of accuracy. In hobby, analysis and application of general “type 3D digital model inside the computer graphics technology, is implausibly loads of connected analysis on digital modelling and 3D visual presentation, and 3D model has multiple sources of knowledge, to boot to the quality human modelling, can use associate degree large vary of pic transfer sites for the windows of the back-end server for information, compared with the operator can get the proper 3D model (Maarten Vergauwen, 2006), launched by Aurodesk company's Recap service is that this variety of business service system. Not only the 3D modelling, the users are now days seeking enhancements to save time. To improve time saving additional functionality added as AI based chatbot.

PROPOSED WEB-BASED MODEL SIMULATION USING THREEJS:

In this, its inclination to introduce the ThreeJs framework, that uses the OBJLoader and MTLLoader classes to 3D portrayal service for server and to point the same on world browsers. For this visual image, associate image-based approach is utilized. wholly completely different views of cloths is rendered, cached at intervals the server, and transfer to the consumer at intervals the fashion of rendered object of cloth. ThreeJs supports wholly completely different zoom levels and appearance at orientation of the damage objects. the following product follow the principle of G-buffers.
WebGL (Web Graphics Library) is Associate in Nursing API. It permits to access a region machine’s specialised graphics hardware victimization JavaScript, and render the output to webpage in a {very} very regular recent half. Before this,

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access to specialised graphics wasn't achievable and only be accessible to desktop package. The browser was stuck in second graphics.

□ Creating new scenes:
The ThreeJs framework incorporates many alternative JavaScript categories to form scene in 3D/2D manner.

PROPOSED WEB-BASED CHATBOT MODEL USING REACTJS:

The chatbot front end framework build on ReactJS to provide seamless speed and allows ease of Integration with and web-based platform. Query storage part is managed by MondoDB and process flow is handled by DialogFlow.

Use Cases:

Currently there's a trend for publication rough-textured 3D models for Humans to perform trial in increased Reality. These models is used for several functions. This promotes the event of recent algorithms and visualizations with real user knowledge. Today, the amount of e-commerce platform on the market for apparels is upgraded for this feature, thus user will offer trial on virtual dynamic space and obtain accuracy on whether or not user will sure purchase from search.

Below Image depicts that the user can customize with respect to fabric of their choice:

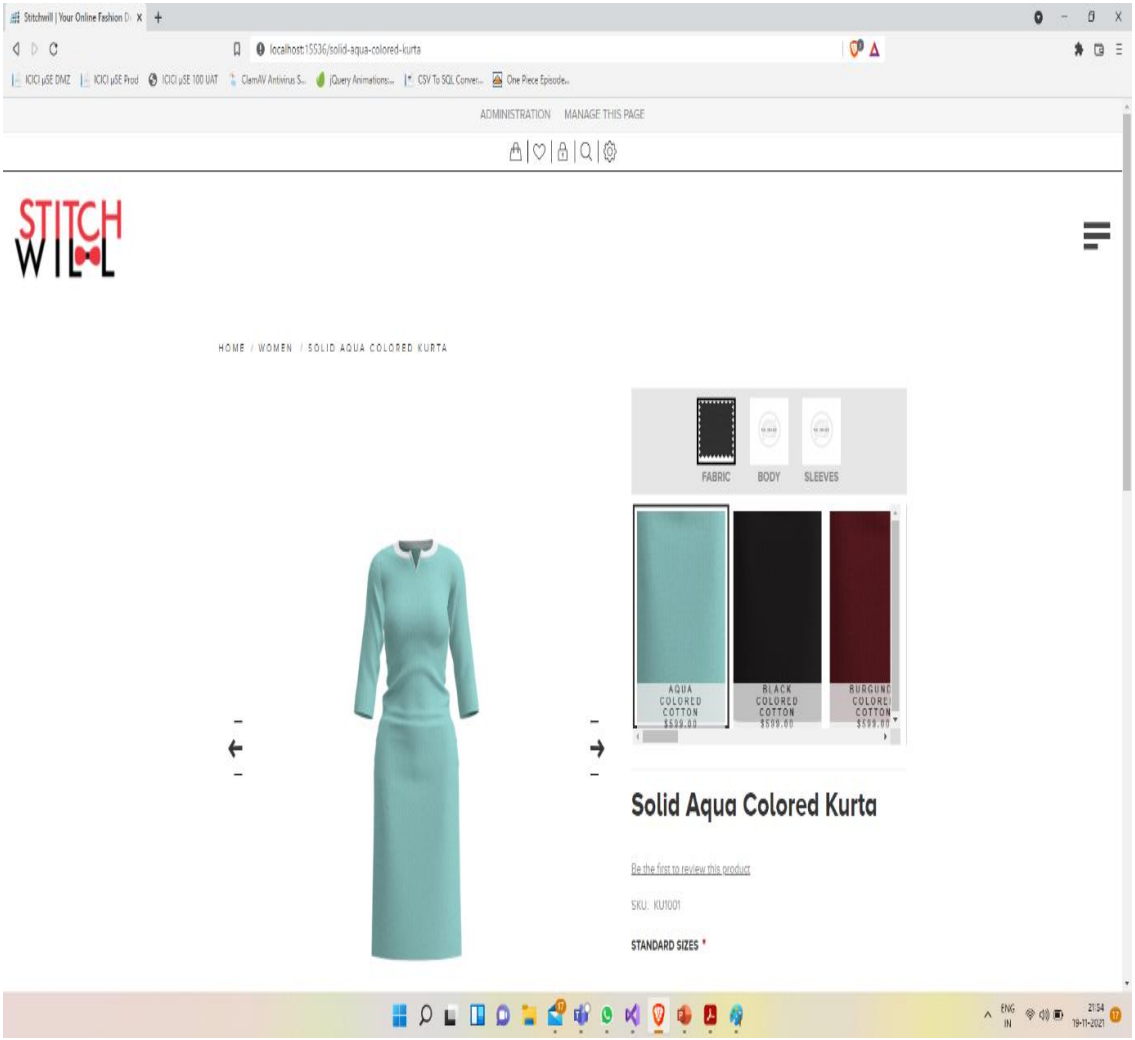

Figure 1 : Customization of Fabric

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Below Image depicts that the user can customize with respect to Body type of their choice:

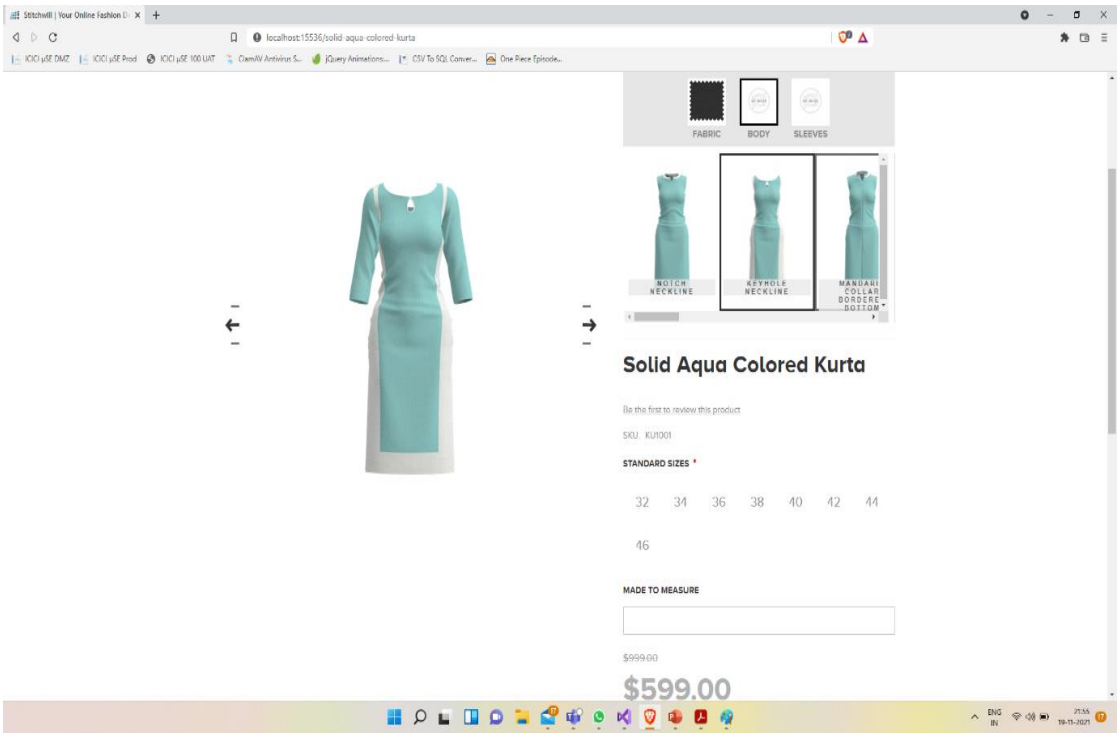

Figure 2 : Customization of Fabric Pattern

Below Image depicts that the user can use chatbot to get details of tracking and other:

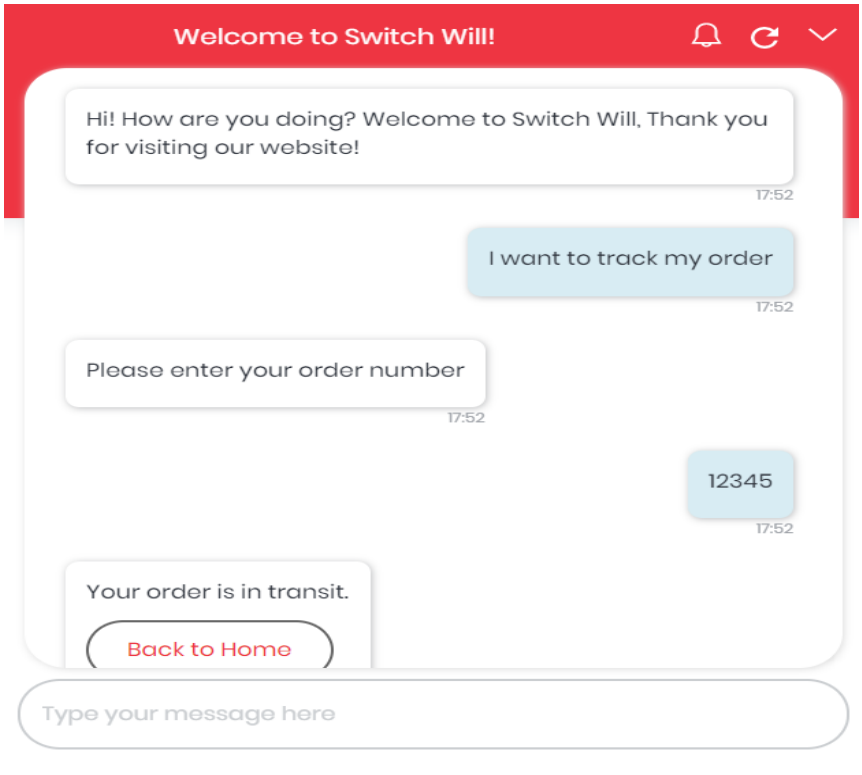

Figure 3 : Tracking order using chatbot

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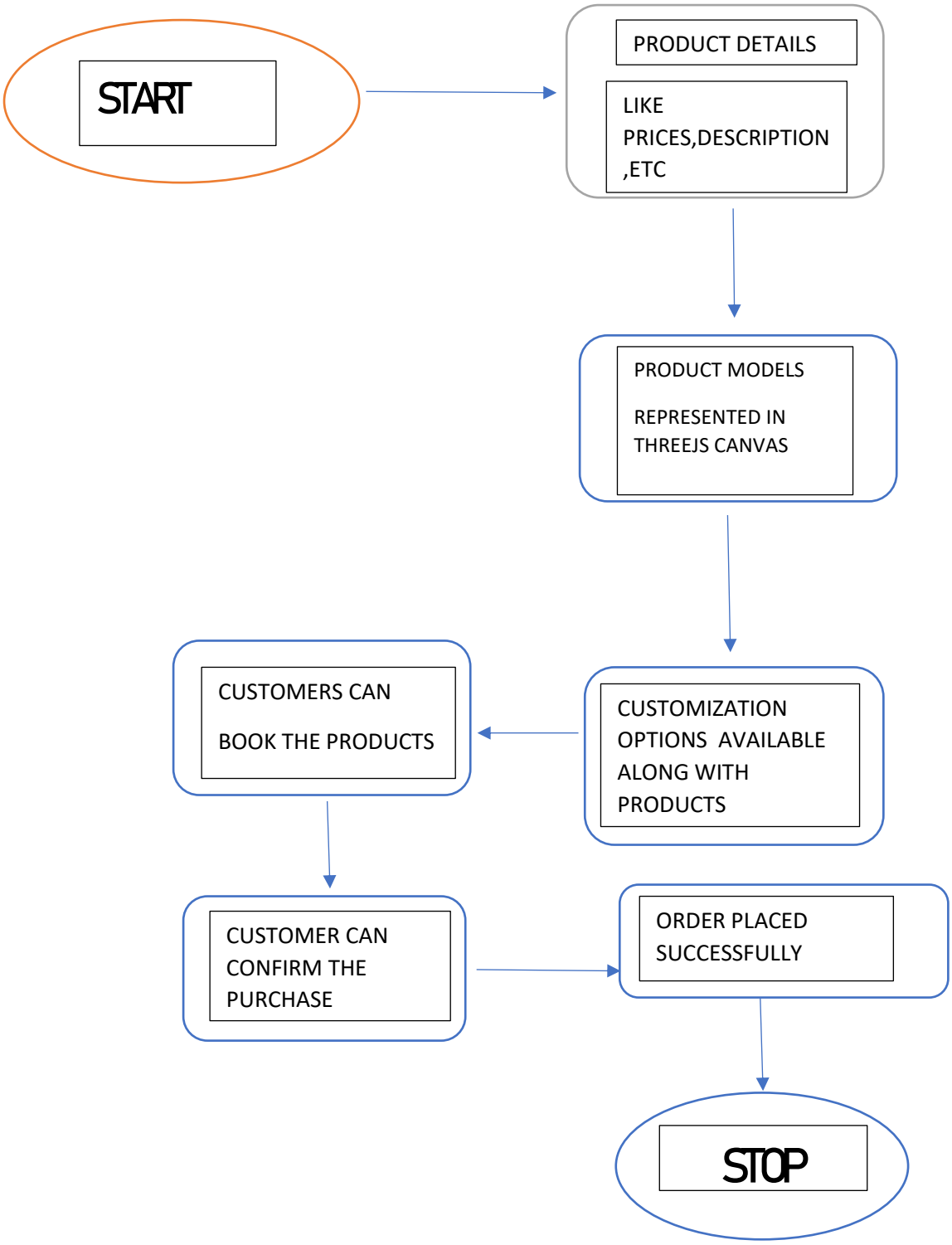
FLOWCHART: ILLUSTRATING THE FLOW OF AN APPLICATION



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INITIAL RESULT OF THREEJS FRAMEWORK:

Ø The plan of virtual wardrobe came from the present ecommerce sites that provides every and each daily things, but we've got to have confidence pictures, photos, descriptions of the merchandise and uses feedbacks. but generally, the particular product seems to be not of excellent quality, and worthless for the number charged. this happens principally within the class of clothing's, apparels. customers nowadays need Associate in Nursing reliable, trustworthy approach specially in consumer goods class.
Ø Presented a thought of virtual wardrobe, that provides sensible accessibility, freedom to users, wherever he will access to varied styles and customization in conjunction with the material of product.
Ø For implementation, we've got used
• ASP.NET in presentation layer
• C#.NET in Business Logic Layer
• ADO.NET in knowledge layer
• MS SQL Server as information.

Ø User will choose between all obtainable customization parameters like sleeves, collars, front pocket, etc. in men classes. for ladies additionally we've got ton of customization on kurti, casual wear, workplace wear, etc. with parameters like neck, front and back pattern, etc.
Ø we area unit primarily exploitation ASP.NET MVC may be an internet application framework with hustle.NET to act with information. SQL was used as back-end information. Before implementing the project and in depth analysis was wiped out Business-to-Customer (B2C), wherever we tend to act as go-between part between business and customers, providing customers as interactive platform to shop for product of their alternative.
Ø ThreeJS may be a cross-browser JavaScript library/API that is employed to form and animate 3D camera work to show during a application program.
Ø WebGL: is that the Javascript API that permits you to form 3D graphics within the browser. Three. js: A framework repose on high of WebGL that makes it easier to form 3D graphics within the browser,
Ø We have used each to realize the real time graphics for all things, product we tend to sale from our application. This helps US to earn client trust by showing them the merchandise like real time pictures.

OBSERVATION AND CONCLUSION:

Ø It has divided net application into multiple layers that area unit enforced exploitation all higher than layers (I.e., Business logic layer, presentation layer etc.)
The main elements area unit
• Manage product
• Manage customers
• View order
• Make order
• Manage payments
• Login /Logout practicality.
• Checkout
• Account
• Shopping cart
• Payment page
• Dashboard
• User registration.

Ø Divided the users into 2 main classes i.e., Admin, User and traveller. this sort of users has completely different flow internally to manage the applying practicality.

Ø If user (registered user) uses the applying, then he will manage/ read below things
• View item
• Purchase item
• Instant pay
• Manage handcart
• Wishlist

Ø If application is visited as traveller, then he will manage/view below things

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• View things
• Register (user profile creation of user)

Ø Admin is that the sole owner of application, he will access. Manage all item of the applying.

Ø For payment handling, integration with Paypal and alternative payment entranceway.

Ø Cart functionality: - once the registered user logins to application. we've handcart practicality, user will add item to handcart, will modify cart, view cart, read purchase history, history report etc.

Ø For user registration, The User can insert his personal data together with a picture into the registration kind. once submitting the shape, an affiliation is established with information base that saves the data.

Ø Implemented the authentication mechanism to certify the verified user, solely this user can gain access to application and might use the cart practicality of application.

Ø .Net version for building application and used information base for maintaining client information with an eye fixed to stay security in situ. exploitation the newest technology, this has achieved building associate application for the client which can facilitate them, gain trust and guide them to decide on the attire of their alternative and selection. At an equivalent time, our application ensures the client information security and that we area unit following all secure measures for payment connected things.

Ø We can keep upgrading our application once and wherever needed and as per market demands to offer advantages to customers

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