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Vellore Institute of Technology
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E-COMMERCE SITE

**Internet and Web Programming – ITA6003 under the
guidance of Dr. Nithya Darshni**

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Abstract:

In this era of internet, e-commerce is growing by leaps and bounds keeping the growth of brick-and-mortar businesses in the dust. In many cases, brick-and-mortar businesses are resorting to having a counterpart which is internet or e-commerce driven. People in the developed world and a growing number of people in the developing world now use e-commerce websites on a daily basis to make their everyday purchases. Still the proliferation of e-commerce in the under-developed world is not that great and there is a lot to desire for. This paper outlines different aspects of developing an e-commerce website and the optimum solution to the challenges involved in developing one. It consists of the planning process, which starts with determining the use case, domain modeling and architectural pattern of the web application. The entire development process is primarily divided into two parts: the front-end development and the back-end development. The database design is also discussed with an emphasis on its relational connectivity. This no-nonsense method of developing an e-commerce website can be easily replicated and followed in developing e-commerce websites in the developing and under-developed countries where computing resources are scarce and expensive because of their socio-economic condition.

Introduction:

Online shopping is the process whereby consumers directly buy goods or services from a seller in real-time, without an intermediary service, over the Internet. It is a form of electronic commerce. An online shop, eshop, e-store, internet shop, webshop, online store, or virtual store evokes the physical analogy of buying products or services at a bricks-and-mortar retailer or in a shopping centre. The process is called Business-toConsumer (B2C) online shopping. The shopping cart project needs to create the shopping cart system to organize the products record and the other information about the customers. How customers can buy products from website can be recognized from their username and password. Online shopping is rising day by day in India. Because India is the country where computer users are increasing day by day so as the online shopping trends are also increasing. This project covers the online selling of cosmetics, fashion accessories, watches etc. The project shows the product category and then product details. From the product details, the product can be added to cart and can be bought.

Objective:

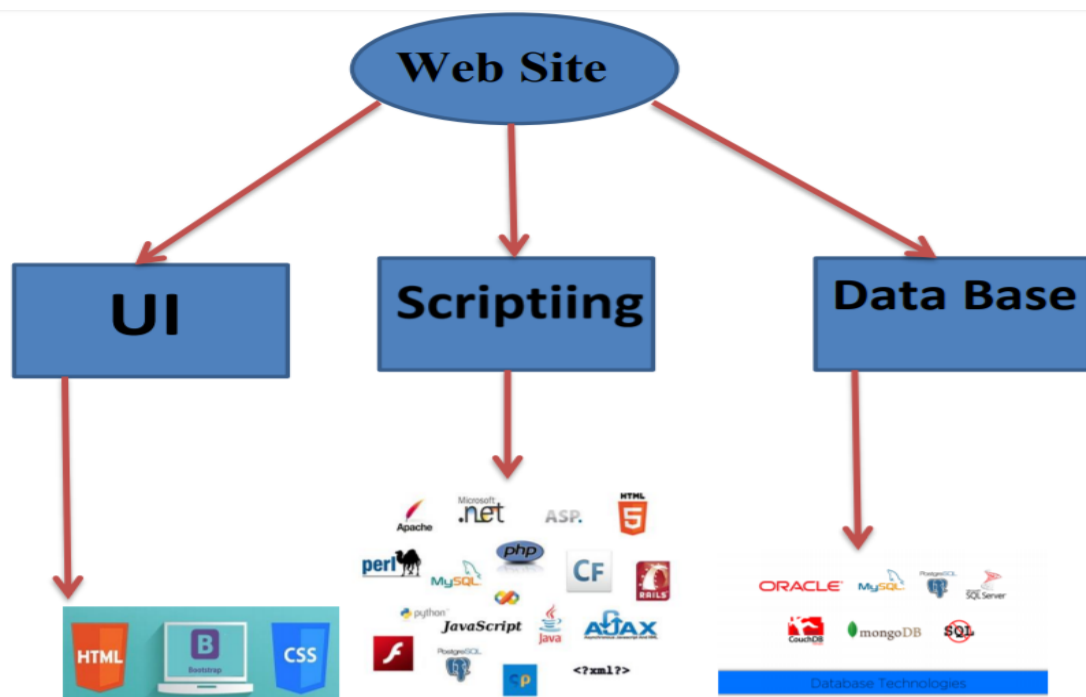
Online Shopping is the process whereby consumers directly buy goods and services without any intermediary service over the internet. The goal of this website is to develop a web-based interface for students of Jammu and Kashmir, the website would be easy to use and hence the shopping experience pleasant for the users. The main goal of this website is:

- To develop an easy to use web-based interface where users can search for products, view a complete description of the product and order the product.
- A user can buy and sell books from home.
- After payment he/she will get the product via home delivery.

Steps to create a website:

Creating a web site requires multiple steps which includes the following:

- Creating a UI(User interface).
- Scripting(Both at server end and client end).
- Creating a backend or the database.



UI Development:

Technologies that are mostly used to develop a User Interface are:

- HTML
- CSS
- BOOTSTRAP

HTML: Hypertext Markup Language (HTML) is the standard markup language for creating web pages and web applications. With Cascading Style Sheets (CSS) and JavaScript it forms a triad of cornerstone technologies for the World Wide Web. Web browsers receive HTML documents from a webserver or from local storage and render them into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

CSS: Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language. Although most often used to set the visual style of web pages and user interfaces written in HTML and XHTML, the language can be applied to any XML document, including plain XML, SVG and XUL, and is applicable to rendering in speech, or on other media. Along with HTML and JavaScript, CSS is a cornerstone technology used by most websites to create visually engaging webpages, user interfaces for web applications, and user interfaces for many mobile applications. CSS is designed primarily to enable the separation of presentation and content, including aspects such as the layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple HTML pages to share formatting by specifying the relevant CSS in a separate .css file, and reduce complexity and repetition in the structural content.

Bootstrap: Bootstrap is a free and open-source front-end web framework for designing websites and web applications. It contains HTML- and CSS-based design templates for typography, forms, buttons, navigation and other interface components, as well as optional JavaScript extensions. Unlike many web frameworks, it concerns itself with front-end development only.

Linking of bootstrap with HTML and CSS:

```
<link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.0/css/bootstrap.min.css"
integrity="sha384-9aIt2nRpC12Uk9gS9baD1411NQApFmC26EwAOH8WgZ15MYyxfFc+NcPb1dKGj7Sk"
crossorigin="anonymous">
<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js" integrity="sha384-
DfXdz2htPH0lsSSs5nCTpuj/zy4C+0GpamoFVy38MVBnE+IbbVYUew+0rCXaRkfj"
crossorigin="anonymous"></script>
<script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.0/dist/umd/popper.min.js"
integrity="sha384-Q6E9RHvbIyZFJoft+2mJbHaEWldlvI9IOYy5n3zV9zzTtmI3UksdQRVvoxMfooAo"
crossorigin="anonymous"></script>
```

Scripting:

There are two scripting methodologies.

- Server-side scripting: This scripting is done at the server end
- Client-side scripting: This scripting is done at the client end or the browser.

SERVER-SIDE SCRIPTING: Server-side scripting is often used to provide a customized interface for the user. These scripts may assemble client characteristics for use in customizing the response based on those characteristics, the user's requirements, access rights, etc. Server-side scripting also enables the website owner to hide the source code that generates the interface, whereas with client-side scripting, the user has access to all the code received by the client. A down-side to the use of server-side scripting is that the client needs to make further requests over the network to the server in order to show new information to the user via the web browser. These requests can slow down the experience for the user, place more load on the server, and prevent use of the application when the user is disconnected from the server.

In our project we use PHP language.

CLIENT-SIDE SCRIPTING: Client-side scripting is changing interface behaviors within a specific web page in response to mouse or keyboard actions, or at specified timing events. In this case, the dynamic behavior occurs within the presentation. The client-side content is generated on the user's local computer system. The client-side content is generated on the client's computer. The web browser retrieves a page from the server, then processes the code embedded in the page (typically written in JavaScript) and displays the retrieved page's content to the user. The most popularly used client-side scripting languages is Java Script. Flow of request from browser to server.

Database:

For our project we use the database **MySQL** .

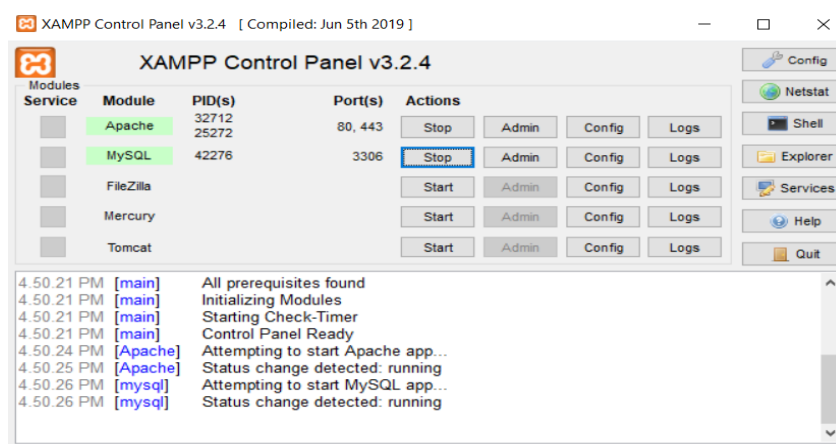
MySQL is a database management system.

A database is a structured collection of data. It may be anything from a simple shopping list to a picture gallery or the vast amounts of information in a corporate network. To add, access, and process data stored in a computer database, you need a database management system such as MySQL Server. Since computers are very good at handling large amounts of data, database management systems play a central role in computing, as standalone utilities, or as parts of other applications.

Requirements:

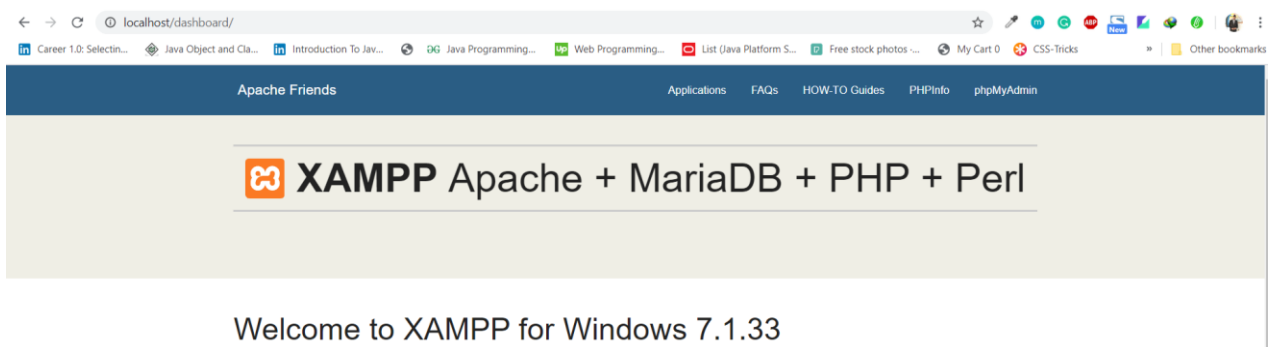
- Need any editor/notepad for writing code
- XAMPP for server language
- MySQL for storing database

How to use xampp for website:



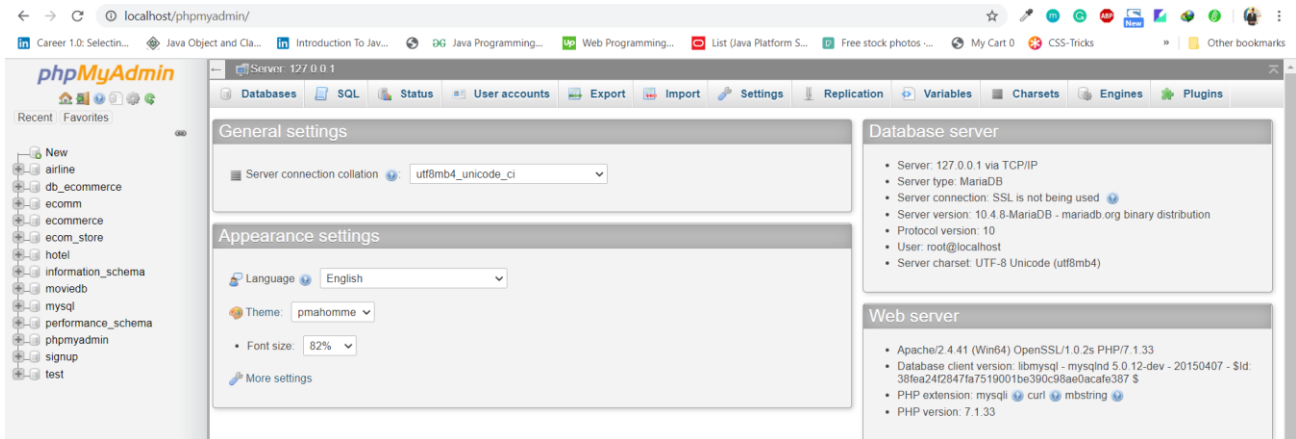
Control Panel of XAMPP

To start the xampp server first you need to start the two modules i.e. Apache and MySQL once both are started then you get the welcome message from xampp side.



Welcome page of XAMPP

PhpMyAdmin page for storing the database:

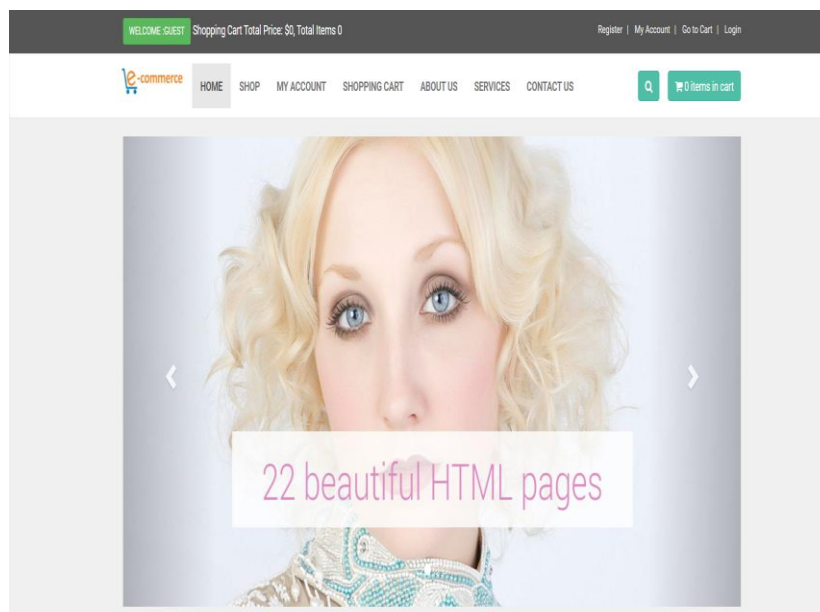


Front page of phpMyAdmin page

Pages:

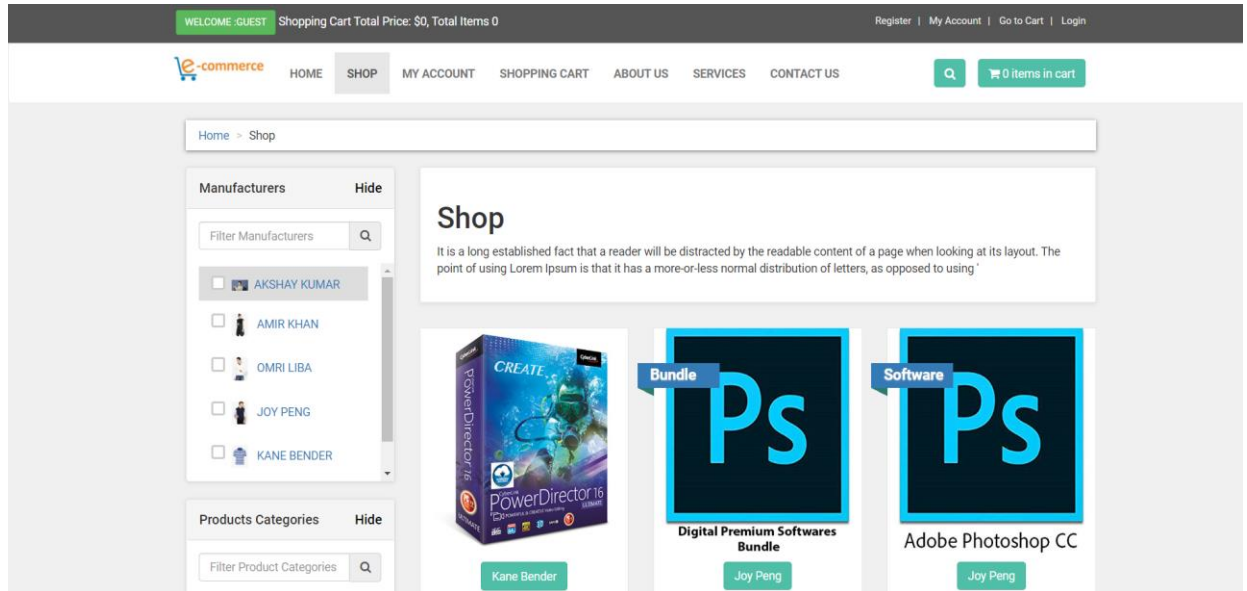
Home page: In this page all the necessary elements are showed like trending products, login, signup form, search menu, different categories for each product and more.

Screenshot of home page:



Shop page: In this page all the different categories of product is available, and you can adjust your setting according to your preferences.

Screenshot of shop page:



My Account page: In this it first asks you that if you are a new here than **register here** if you click on register link than it will take you to the **register page**.

Screenshot of Register Page:

Home > Register

Register A New Account

Customer Name

Customer Email

Customer Password

Confirm Password

Customer Country

Customer City

Customer Contact

If you are already a customer than the user will fill the login form

Screenshot of login form:

Login

Already our Customer

Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Vestibulum tortor quam, feugiat vitae, ultricies eget, tempor sit amet, ante. Donec eu libero sit amet quam egestas semper. Aenean ultricies mi vitae est. Mauris placerat eleifend leo.

Email

Password

[Forgot Password](#)

[Log in](#)

Shopping cart: This page will enable the user to add the number of products they want to give for the service.

Screenshot of cart page:

Shopping Cart

You currently have 0 item(s) in your cart.

Product	Quantity	Unit Price	Size	Delete	Sub Total
Total					\$0.00

Coupon Code : [Apply Coupon Code](#)

[Continue Shopping](#) [Update Cart](#) [Proceed to checkout](#)

Order Summary

Shipping and additional costs are calculated based on the values you have entered.

Order Subtotal	\$0.00
Tax	\$0.00
Total	\$0.00

Contact us page: In this page the user connects with us. From this page user can send message for what are their requirements or any problem regarding any product.

Screenshot of contact us page:

Contact To Us

If you have any questions, please feel free to contact us, our customer service center is working for you 24/7.

Name

Email

Subject

Message

Select Enquiry Type

Select Enquiry Type
▼

Tables made for database:

Customer table structure:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/> 1	customer_id	int(10)			No	None		AUTO_INCREMENT	Change Drop More
<input type="checkbox"/> 2	customer_name	varchar(255)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/> 3	customer_email	varchar(255)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/> 4	customer_pass	varchar(255)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/> 5	customer_country	text	latin1_swedish_ci		No				Change Drop More
<input type="checkbox"/> 6	customer_city	text	latin1_swedish_ci		No				Change Drop More
<input type="checkbox"/> 7	customer_contact	varchar(255)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/> 8	customer_address	text	latin1_swedish_ci		No				Change Drop More
<input type="checkbox"/> 9	customer_image	text	latin1_swedish_ci		No				Change Drop More
<input type="checkbox"/> 10	customer_ip	varchar(255)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/> 11	customer_confirm_code	text	latin1_swedish_ci		No				Change Drop More

Product table structure:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	product_id	int(10)		No	None		AUTO_INCREMENT	Change Drop More
<input type="checkbox"/>	2	p_cat_id	int(10)		No	None			Change Drop More
<input type="checkbox"/>	3	cat_id	int(10)		No	None			Change Drop More
<input type="checkbox"/>	4	manufacturer_id	int(10)		No	None			Change Drop More
<input type="checkbox"/>	5	date	timestamp		No	current_timestamp()		ON UPDATE CURRENT_TIMESTAMP()	Change Drop More
<input type="checkbox"/>	6	product_title	text	latin1_swedish_ci	No				Change Drop More
<input type="checkbox"/>	7	product_seo_desc	text	latin1_swedish_ci	No				Change Drop More
<input type="checkbox"/>	8	product_url	text	latin1_swedish_ci	No				Change Drop More
<input type="checkbox"/>	9	product_img1	text	latin1_swedish_ci	No				Change Drop More
<input type="checkbox"/>	10	product_img2	text	latin1_swedish_ci	No				Change Drop More
<input type="checkbox"/>	11	product_img3	text	latin1_swedish_ci	No				Change Drop More
<input type="checkbox"/>	12	product_price	int(10)		No	None			Change Drop More
<input type="checkbox"/>	13	product_psp_price	int(100)		No	None			Change Drop More
<input type="checkbox"/>	14	product_desc	text	latin1_swedish_ci	No				Change Drop More
<input type="checkbox"/>	15	product_features	text	latin1_swedish_ci	No				Change Drop More
<input type="checkbox"/>	16	product_video	text	latin1_swedish_ci	No				Change Drop More
<input type="checkbox"/>	17	product_keywords	text	latin1_swedish_ci	No				Change Drop More
<input type="checkbox"/>	18	product_label	text	latin1_swedish_ci	No				Change Drop More
<input type="checkbox"/>	19	product_type	text	latin1_swedish_ci	No				Change Drop More
<input type="checkbox"/>	20	product_weight	decimal(10,1)		No	None			Change Drop More
<input type="checkbox"/>	21	status	varchar(255)	latin1_swedish_ci	No	None			Change Drop More

Product categories table structure:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	p_cat_id	int(10)		No	None		AUTO_INCREMENT	Change Drop More
<input type="checkbox"/>	2	p_cat_title	text	latin1_swedish_ci	No				Change Drop More
<input type="checkbox"/>	3	p_cat_top	text	latin1_swedish_ci	No				Change Drop More
<input type="checkbox"/>	4	p_cat_image	text	latin1_swedish_ci	No				Change Drop More

Order table structure:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	order_id	int(10)		No	None		AUTO_INCREMENT	Change Drop More
<input type="checkbox"/>	2	customer_id	int(10)		No	None			Change Drop More
<input type="checkbox"/>	3	invoice_no	int(10)		No	None			Change Drop More
<input type="checkbox"/>	4	shipping_type	text	latin1_swedish_ci	No				Change Drop More
<input type="checkbox"/>	5	shipping_cost	decimal(10,1)		No	None			Change Drop More
<input type="checkbox"/>	6	payment_method	text	latin1_swedish_ci	No				Change Drop More
<input type="checkbox"/>	7	order_date	text	latin1_swedish_ci	No				Change Drop More
<input type="checkbox"/>	8	order_total	decimal(10,1)		No	None			Change Drop More
<input type="checkbox"/>	9	order_status	text	latin1_swedish_ci	No				Change Drop More

GOOGLE DRIVE LINK:

https://drive.google.com/drive/folders/1mdKlgjagyJo-nifswKnRLM8_R5nJKR6H?usp=sharing