# Criteria B: Record of Tasks

| Date Started | Action | Details | Comments/Follow Up | Criterion |
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| 17 January 2022 | Initial consultation with Mrs Reena Kalra (client) | Discussing the current situation of client, problems being encountered, and the key expectations for the solution. | | A |
| 20 January 2022 | Identifying possible solutions | Identifying possible solutions best suited to resolve the problem and meet expectations outlined by client.<br><br>Also, conducting an evaluative comparison to identify the best solution. | | A |
| 21 January 2022 | Second client consultation | Presenting the possible solutions & their evaluative comparison to client; and answering their questions about the possible solutions. | The final solution was chosen and approved by client. | A |
| 21-22 January 2022 | Creating success criteria | Creating success criteria based on the solution platform, the nature of the solution, and the needs of client. | | A |
| 22 January 2022 | Third consultation with client | Presenting success criteria to client.<br><br>I received feedback on possible additions and changes to the criteria; which I subsequently incorporated. | I received a deeper insight into the expectations of the client from the additions requested. Extremely helpful in developing product.<br><br>Final success criteria approved by client. | A |
| 3 February 2022 | Determining Product Scope | Determining the scope of the product, in terms of the target audience; as well as the functionalities of both clients and admins. | Consulted client to get better idea of scope for payment methods, and the scope of target audience (i.e., only domestic customers) | B |
| 3 February 2022 | Creating Flowcharts for Typical User Navigation | Creating flowcharts to explore the typical navigation process of a customer and the website admins. | | B |

| | | Determined by exploring and recalling the traditional navigation on any e-commerce website. | | |
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| 6 February 2022 | Creating Customer Model | Determining the data fields that would be required for customers to create unique accounts. | | B |
| 9 February 2022 | Creating Product Model | Determining the fields necessary for Products added to the website; and created schemas for the same. | Inputs were taken from my clients as to the fields required for the model.<br><br>Model finalized post discussion and inputs from my client. | B |
| 12 February 2022 | Creating Shipping Address model | Creating the ShippingAddress model, which will contain the address where the order will be delivered. | | B |
| 12 February 2022 | Creating Order and OrderItem Model | Determining the necessary fields for the Order model, and how that would relate to the Product model via OrderItem.<br><br>Using schemas and Entity-Relationship diagrams to document these relationships. | | B |
| 12 February 2022 | Creating Entity-Relationship Diagram for Website | Using the models and relationships determined for all other tables to create the overall ER Diagram for the entire website. | | B |
| 15 February 2022 | Determining Sign Up & Login Logic | Creating flowcharts and pseudocodes to determine the logic behind the sign up & login forms.<br><br>Also exploring how Customer model would be checked and updated in this process. | | B |

| 19 February 2022 | Creating or Retrieving Customer Cart | Exploring the concept of a 'cart' and the different contexts in which cart may be retrieved. Using these possible scenarios, determining the logic for creating/retrieving cart using a flowchart & pseudocode. | | B |
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| 19 February 2022 | Updating products in cart | Dealing with adding, deleting, and updated products in cart; and understanding use of OrderItem model in this process. Then, creating a pseudocode and flowchart to determine the logic behind the same. | | B |
| 23 February 2022 | Determining Checkout Flow | Determining the process that would be taken by a customer when they move to the checkout process (from finalizing cart to successful order payment). Representation of process done via flowchart. | | B |
| 23 February 2022 | Presenting Order Summary | Exploring the information that will be presented about cart to customer upon checkout (products being bought, price etc.).<br><br>Thus, determining the logic for how this data will be retrieved and represented from the necessary tables. | | B |
| 25 February 2022 | Shipping Details | Determining the different scenarios in which shipping details may be requested.<br><br>Thus, creating logic that caters to each of those scenarios to maximize efficiency of process for customer. | Faced a little difficulty in determining the logic, particularly for presenting & choosing already saved addresses.<br><br>However, through discussions with my Computer Science teacher, I was able to understand the approach that should be taken. | B |

| 26 February 2022 | Payment Integration Research | Researching into the different APIs that can be used for online payments on the e-commerce website, and writing my rationale for the choice of Razorpay. | | B |
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| 28 February 2022 | Payment Integration Logic | Writing the procedure and pseudocode for how the online payment process would be integrated onto the website. | Used the Razorpay API documentation to write this logic. | B |
| 1 March 2022 | Post Payment Processing | Determining the logic for what happens to the order once a payment is verified and successful. Deals with logic of how a closed-loop system will be created; wherein one cart is closed and another is allowed to open for the customer when they visit website again. | | B |
| 3 March 2022 | Admin Signup | Determining how new administrators would be registered to the website; while keeping in mind the security of the website. | | B |
| 3 March 2022 | Determining Add/Delete Products Functionality | Creating the flowchart and pseudocodes for how products would be added by website admin; and pseudocode for how products would be deleted by admin. | | B |
| 4 March 2022 | Determining logic to provide Order previews | Determining the data retrieval process that would allow administrators to view the complete list of all the orders placed on the website as previews. | | B |
| 4 March 2022 | Viewing a Specific Order | Determining the data retrieval from the database that would allow the administrator to view all the details about an Order (either in the Order table, or associated via Foreign Key relationships). | This process was slightly challenging, as it was difficult to determine how I would retrieve data from the Foreign Key tables of the Order model. However, using the ER Diagram of the databases, I was able to determine the logic. | B |

| Date | Task | Description | Notes | Criteria |
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| 4 March 2022 | Updating Orders | Determining how the admin would be able to update order/payment statuses on the website. | | B |
| 4 March 2022 | Filtering and Sorting Orders | Exploring how I could provide 'filter by' or 'sort by' options to administrators to make it easier for them to search for a specific order based on certain parameters. | | B |
| 8 March 2022 | Designing Website Pages | Creating possible designs for all the possible pages, including 3 possible homepage designs. | A discussion was held with my client in which several pages were finalized, and feedback was received on the 3 homepage designs to arrive at a final layout. | B |
| 11 March 2022 | Finalizing Homepage | After conducting a design analysis based on my client's specifications, design usability, and accessibility, I finalized the website's homepage. | This homepage was also approved by my client after a discussion of the analysis I conducted. | B |
| 8 June 2022 | Setting up Django | To begin with, I had to install the required Python packages and initialize a Django 'application' on which I would design my website. | I followed the procedure outlined on the Django Documentation for this process. | C |
| 8 June 2022 | Creating Django Models | Implementing the database tables using Python classes (called models in Django) and committing these tables to the database. | Constraints, checks, and validation rules used for tables were taken from those defined in Criteria B. | C |
| 9 June 2022 | Setting up HTML templates | Creating a base HTML template and extending it into the main website pages (homepage, cart, checkout, sign up, login etc.) | | C |
| 9 June 2022 | Setting up Sign Up and Login Pages | Using Django Forms and HTML implement the Sign Up and Login pages. | I initially faced difficulty in navigating how to connect the frontend & backend using Django, but the documentation aided me in resolving this issue. | C |

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| 10 June 2022 | Loading Products onto Homepage | Implemented the functionality of displaying all my customer's products on the homepage. | | C |
| 11-12 June 2022 | Enabled 'add to cart' Functionality | Implemented the functionality of adding a product to the customer's cart using the Order and OrderItem tables. | This step utilized JavaScript, HTML, and Python. I also utilized MDN's Fetch API documentation to understand how to write HTTP requests. | C |
| 13 June 2022 | Set up Cart Page | Using the updated cart, I set up the cart page to display the items in the user's cart, while allowing them to modify product quantities. | This step utilized HTML and Python. | C |
| 13 June 2022 | Establishing Login Requirement | Adding in a login requirement whereby users are prompted to log in before they can use any functionalities of the website. | This was done as I noticed that errors were being thrown up whenever I tried to navigate the website as a guest user (as I did not encode it with this functionality). To make my testing more error-free, I implemented this. | C |
| 14 June 2022 | Setting up Search Functionality | Implementing functionality to allow users to search for products from the homepage. | | C |
| 17 June 2022 | Setting up Checkout Page | Setting up the frontend checkout HTML page to create a template for the checkout flow. | This HTML was updated when implementing the checkout backend to add the necessary frontend buttons/features to initiate payment and checkout. | C |
| 18-26 June | Implementing Checkout Functionality | Implementing the checkout functionality, including selecting & saving customer shipping addresses, processing payment (if online) using the Razorpay API, verifying online payments, and successfully 'placing' the order after payment is verified. | I faced difficulties in understanding how to divide this process to prevent errors and optimize the process. I resolved these using flowcharts to understand the procedural flow and dry-run testing to identify errors. | C |

| | | | I also referred to the Razorpay documentation to implement online payment. | |
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| 30 June – 1 July 2022 | Implementing Profile Pages | Implementing the view profile, edit profile, and change password pages. | The change password page was not initially planned, but was added after seeing how easy it was to practically implement. | C |
| 6-8 July 2022 | Implementing Admin Pages | Setting up the admin side of the website to show all orders and their shipping addresses, allowing administrators to modify order status etc. I also added searching and filtering methods to make admin usability easier. | I modified Django's built-in admin template to manage the viewable data, searching and filtering, access rights etc. | C |
| 9 July 2022 | Adding Checkout Fixes | Adding the functionality to decrement product stock when an order is successfully placed. | This was done after noticing that product stock did not decrement and never went to zero during preliminary testing. | C |
| 20-23 July 2022 | Adding Navigation Fixes | Added the following fixes:<br>1. Preventing users from accessing cart/checkout pages when logged out by removing navigation buttons.<br>2. Changing navigation bar to show 'logout' and 'profile' buttons only when logged in.<br>3. Preventing users from checking out with empty cart. | These bugs were identified during alpha testing and were promptly fixed. | C |
| 20-22 October 2022 | Identifying Product Complexities | Identifying the different complexities used in the product and presenting them in a document. | | C |
| 26-28 December 2022 | Developing Product Screencast | Developing the screencast to display the product functionality and its compliance with my client's success criteria. | | D |
| 15-17 January 2023 | Conducting Product | Comparing the product against the success criteria to | An interview was taken with the client where I took | E |

| | Evaluation and Highlighting Improvements | determine its relative success, taking the client's feedback on the product, and ideating upon possible improvements for the product. | her feedback and criticisms on the product, as well as her suggested improvements for the same. | |
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