

TEESSIDE UNIVERSITY  
SCHOOL OF COMPUTING, MEDIA AND THE ARTS  
**SOFTWARE ARCHITECTURE (COM3041-N) WORK PACKAGE SPECIFICATION**

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Component Name (from Diagrams)	System Requirements (from Requirement Analysis)	Key Features (from Requirement Analysis)	Interfaces to Other Components (from Diagrams)
Purchasing Component	<p>It is required that the purchasing component does the following:</p> <ul style="list-style-type: none"> <li>• Allows staff to view all invoices for a customer.</li> <li>• Allows a customer to view all invoices of their own account.</li> <li>• Generate invoices to be sent to customers when orders exceed £50 or an invoice has not been sent after 5 minutes of a customers last purchase.</li> <li>• Allows a customer to view their purchase history.</li> <li>• Allow staff to view a customers purchase history.</li> <li>• Allow staff to view all orders placed.</li> <li>• Allow staff members to manually send invoices to a customer if the invoice is in a pending state.</li> </ul>	<p>In order to fulfil the system requirements, the following features will be implemented:</p> <ul style="list-style-type: none"> <li>• Retrieve a list of invoices for a given customer.</li> <li>• Retrieve a list of all orders made by a given customer</li> <li>• Request for an invoice to be generated when a series of orders exceed £50, or an invoice has not been generated in the last 5 minutes of a customers last purchase</li> <li>• Retrieve a list of all orders made.</li> <li>• Request for an invoice to be sent to a customer via the messaging service.</li> <li>• Request for an order to be placed.</li> </ul>	<p>This component will interact with both the staff web application and the customer/public web application.</p> <p>The staff application requires this component in order to view orders made by a set customer or all customers as well as have the ability to view/send invoices.</p> <p>The customer application requires this component in order for customers to be able to view their purchase history and all invoices associated with these purchases. When making an order using the application, the purchase component will be used in order to place this order.</p>
Staff Web Application	<p>The staff web application is required to consume the following components:</p> <p><b>Company purchasing component:</b></p>	<p>In order to fulfil the stated system requirements, the following features will be implemented:</p> <p><b>Stock page:</b></p>	<p>The staff web application will communicate with the following components:</p> <ul style="list-style-type: none"> <li>• Company purchasing</li> <li>• Staff profile</li> </ul>

	<p>This component returns the credit card details of the company to allow for the staff to purchase items from third-party suppliers.</p> <p><b>Staff profile component:</b> This component is required for the application to know what permissions the current staff members has (ability to change price of stock, ability to view stock price history, view customer profiles etc.)</p> <p><b>Customer profile component:</b> This component is required for the staff members to be able to view information about customers (like name, address etc.) and permissions to purchase items.</p> <p><b>Warehouse component:</b> This component is required for the staff members to be able to view items available for customers to be purchases and to make changes to these items (prices, stock level etc.)</p> <p><b>Third-party suppliers:</b> These components (Undercutters, DodgyDealers and BazzasBazaar) are required to allow for staff members to replenish stocks of items in the warehouse if required.</p> <p><b>Purchasing component:</b> This component is required to allow staff to view the order history/invoices of customers, approve customer orders and send customer invoices.</p>	<ul style="list-style-type: none"> <li>• View stock level of products. This will be designed in a way that staff can easily tell when items need to be restocks.</li> <li>• View historical re-sell prices of items sold to customers and edit the current price of products.</li> <li>• View prices of items from third-party suppliers and allows for the purchasing of items from these suppliers.</li> </ul> <p><b>Customers page:</b></p> <ul style="list-style-type: none"> <li>• View a list of all unregistered customers. From here, staff can authenticate customer accounts.</li> <li>• View message history and order history of individual customers.</li> <li>• Toggle a customers ability to purchase items from the store.</li> <li>• View pending customer invoices for individual customers.</li> <li>• Send these pending customer invoices to the customer.</li> </ul> <p><b>Staff login page:</b></p> <ul style="list-style-type: none"> <li>• Allows staff members to log into the application. Required in order to understand what features a staff account has access to (adjusted from the Management application)</li> </ul>	<ul style="list-style-type: none"> <li>• Customer profile</li> <li>• Warehouse</li> <li>• UnderCutters</li> <li>• DodgyDealers</li> <li>• BazzasBazaar</li> <li>• Purchasing</li> <li>• Messaging</li> </ul>
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	<b>Messaging component:</b> This component is required to allow staff members to view the message history of customers and to be able to send messages to customers.		

Note: Each component can address a number of system requirements and/or key features.