

Database Design

After modeling our database onto an EERD, we yield the following tables.

External_Stakeholders Table

| stakeholder_id | email | address | contact_number |
|----------------|--------------------------|-------------------------------------|----------------|
| 1 | Johndoe@gmail.com | 1 Skip Street, Pretoria, 0081 | 0831234567 |
| 2 | Info@ramcouriers.co.za | 27 Wrench Rd, Kempton Park, 1600 | 0104948223 |
| 3 | Inventory@mdesigns.co.za | 355 Bullhorn St, Johannesburg, 2215 | 0117375841 |
| 4 | Info@bexexpress.co.za | 120 Loper Ave, Kempton Park, 1619 | 0861239397 |
| 5 | Suzymashaba@gmail.com | 45 Harpoon Lane, Midrand, 0157 | 0723214321 |

Customer Table

| customer_id | stakeholder_id | name | surname | password | card_no | exp_date |
|-------------|----------------|------|---------|--------------|------------------|----------|
| 1 | 1 | John | Doe | Password123! | 4480123456789000 | 03/29 |
| 2 | 5 | Suzy | Mashaba | Secret45### | NULL | NULL |

Juristic Table

| jurist_id | stakeholder_id | trading_name | freight_rate | account_no | branch_code |
|-----------|----------------|------------------|--------------|-------------|-------------|
| 1 | 2 | RAM Couriers | R73 | 62000001452 | 250655 |
| 2 | 3 | Marriage Designs | R90 | 401475684 | 632005 |
| 3 | 4 | BEX Express | R59 | 1023657342 | 198765 |

Courier Table

| courier_id | jurist_id |
|------------|-----------|
| 1 | 1 |
| 2 | 3 |

Supplier Table

| supplier_id | jurist_id |
|-------------|-----------|
| 1 | 2 |

Collection Table

| coll_id | customer_id | prod_id |
|---------|-------------|---------|
| 1 | 1 | 43 |
| 2 | 2 | 14 |

Wishlist Table

| wish_id | coll_id |
|---------|---------|
| 1 | 1 |

| | |
|--|--|
| | |
|--|--|

Cart Table

| cart_id | coll_id |
|---------|---------|
| 2 | 2 |

Once a customer clicks the checkout button, all the records in the cart table will be converted to an invoice description and corresponding total. The records of the cart table will be deleted as the cart is emptied. By contrast, a wish list's contents are emptied when the customer chooses to send them to the cart or merely deletes them.

Whenever the customer clicks the add to wish list or cart button, a new record with their customer id populates the respective table. Should they have not added anything to either table, there will be no records with their customer id and the site will report as such.

Product Table

| prod_id | prod_name | prod_desc | selling_price | sizes | prod_img | supplier_id |
|---------|-----------------------------------|---|---------------|--|---------------------------------------|-------------|
| 14 | Whispering Petals Bridal Gown | The "Whispering Petals Bridal Gown" is a timeless romance in fabric form. With luxurious satin, intricate lace, and soft tulle, it exudes grace and elegance. Delicate lace appliques adorn the back, while fabric flowers and shimmering beadwork add subtle sparkle. Ideal for brides seeking enchanting sophistication on their special day. | R3499.00 | 25, 25, 26, 27, 27, 28, 29, 30, | Whispering_Petals_Bridal_Gown.png | 1 |
| 43 | Elegant Affair Groom's Ensemble | The "Elegant Affair Groom's Ensemble" is sophistication at its peak. Tailored from premium wool blend, it boasts a classic silhouette with subtle details for added elegance. Perfect for any wedding, it ensures the groom looks impeccable. | R2950.00 | 34, 44, 44, 46, 46, 46, 47, 48, 48, 50 | Elegant_Affair_Groom's_Ensemble.png | 1 |
| 12 | Dainty Charm Ring Bearer Ensemble | The "Dainty Charm Ring Bearer Ensemble" is a sweet blend of elegance and innocence. Featuring a crisp white shirt paired with tailored shorts or trousers, adorned with delicate details like lace accents or satin bows. Finished with coordinating accessories, this ensemble ensures the little one steals hearts down the aisle. | R945.00 | 6, 6, 7, 8, 8, 9, 10, 11, 12 | Dainty_Charm_Ring_Bearer_Ensemble.png | 1 |
| 11 | Cherub Chic Ring Bearer Attire | "Cherub Chic Ring Bearer Attire" steals hearts with its timeless elegance. A crisp white shirt paired with tailored shorts or | R1025.00 | 6, 6, 7, 8, 8, 9, 10, 11, 12 | Cherub_Chic_Ring_Bearer_Attire.png | 1 |

| | | | | | | |
|--|--|--|--|--|--|--|
| | | trousers, adorned with subtle accents, adds whimsy to the wedding. Finished with coordinating accessories, the ensemble ensures the ring bearer looks irresistibly adorable. | | | | |
|--|--|--|--|--|--|--|

We can normalize the Product table by ungrouping the sizes attribute as follows

| prod_id | prod_name | prod_desc | selling_price | sizes | prod_img | supplier_id |
|---------|---------------|----------------------------------|---------------|-------|----------------|-------------|
| 14 | Whispering... | The "Whispering Petals Bridal... | R3499.00 | 25 | Whispering_... | 1 |
| 14 | Whispering... | The "Whispering Petals Bridal... | R3499.00 | 25 | Whispering_... | 1 |
| 14 | Whispering... | The "Whispering Petals Bridal... | R3499.00 | 26 | Whispering_... | 1 |

Thereafter, we can move the attributes that were dependent on the gender and age by which a customer would want to shop for products to their own specialization tables, to further normalize the product table.

Product Table

| <u>prod_id</u> | selling_price | sizes | supplier_id |
|----------------|---------------|-------|-------------|
| 14 | R3499.00 | 25 | 1 |
| 14 | R3499.00 | 25 | 1 |
| 14 | R3499.00 | 26 | 1 |
| ... | ... | ... | ... |

Womens Table

| <u>womens_id</u> | prod_id | quantity | prod_name | prod_desc | prod_img |
|------------------|---------|----------|---------------|----------------------------------|----------------|
| 1 | 14 | 8 | Whispering... | The "Whispering Petals Bridal... | Whispering_... |

Mens Table

| <u>mens_id</u> | prod_id | quantity | prod_name | prod_desc | prod_img |
|----------------|---------|----------|------------|--------------------------------|-------------|
| 1 | 43 | 10 | Elegant... | The "Elegant Affair Groom's... | Elegant_... |

Girl Table

| <u>girls_id</u> | prod_id | quantity | prod_name | prod_desc | prod_img |
|-----------------|---------|----------|------------|--------------------------------|------------|
| 1 | 12 | 9 | Elegant... | The "Dainty Charm Ring Bear... | Dainty_... |

Boys Table

| <u>girls_id</u> | prod_id | quantity | prod_name | prod_desc | prod_img |
|-----------------|---------|----------|-----------|-----------|----------|
|-----------------|---------|----------|-----------|-----------|----------|

| | | | | | |
|---|----|---|-----------|---------------------------------|------------|
| | | | | | |
| 1 | 12 | 9 | Cherub... | "Cherub Chic Ring Bearer Att... | Cherub_... |

Workitem Table

| <u>workitem_id</u> | date |
|--------------------|------------|
| 2q4q38294q | 2024-03-01 |

Order Table

| <u>order_id</u> | workitem_id | order_id | order_desc | customer_id | order_total |
|-----------------|-------------|------------|----------------------------------|-------------|-------------|
| 10001 | 2q4q38294q | 2024-03-01 | 1 Cherub Chic Ring Bearer Attire | 1 | R1025.00 |

Return Table

| <u>return_id</u> | workitem_id | order_id |
|------------------|-------------|----------|
| | | |

Restocking Table

| <u>restock_id</u> | workitem_id |
|-------------------|-------------|
| | |