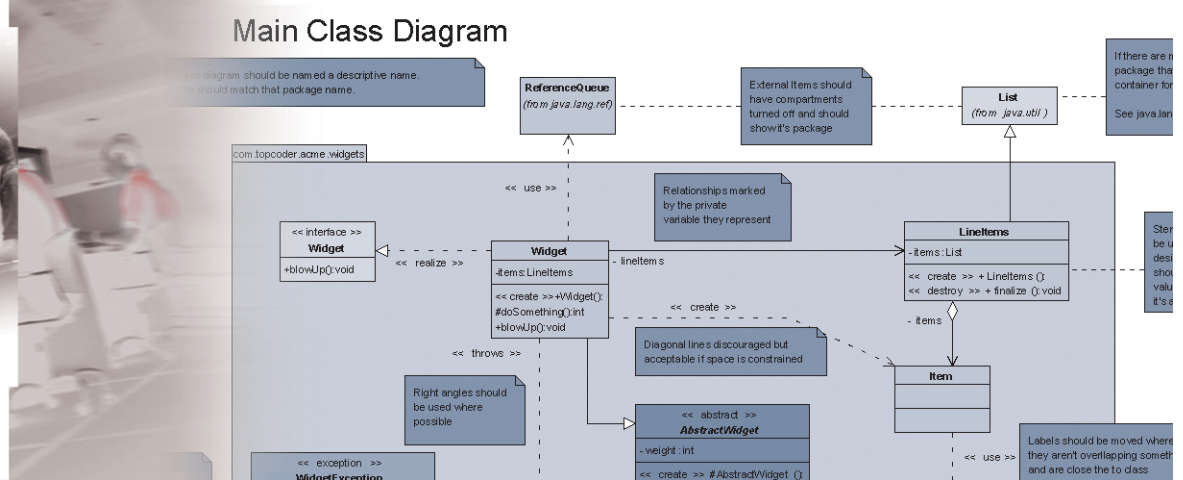


# casestudy

## Gift Card E-Commerce Application



### PROJECT METRICS

- Percentage of application source code from components: 51%
- Total overall application cost savings due to reuse: 45%
- Percentage of time savings for design, development and integration: 55%
- Total lines of test case code: 2,010

### The Customer

Stage Stores is a retailer of nationally recognized brand name apparel operating under the Stage, Bealls, Palais Royal and Peebles names in more than 520 stores in 28 states throughout the US. The company wanted to increase its online business presence through a high quality, customer-facing gift card order application. Stage Stores will use the online gift card order application as a spring board into a full e-commerce web site, offering the same high quality products and reasonable prices as they do in their traditional bricks-and-mortar stores.

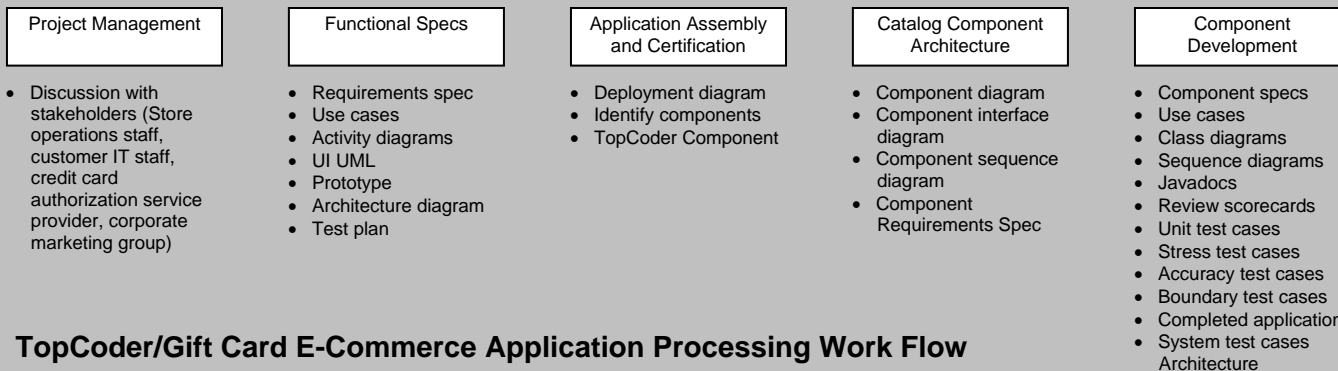
### The Solution

Stage Stores approached TopCoder Software to build a simple online order form where customers could go to order gift cards redeemable at any of their stores and have them shipped to the address of their choice. TopCoder Software proposed a proof of concept solution that would uphold the client's reputation for quality while delivering fast ROI. TopCoder Software assessed the scope of the work to be done and proposed a solution designed to simplify the user experience, while providing a foundation for the future. The solution also provided the necessary visibility into recent orders that the gift card fulfillment staff needed in order to efficiently process the orders and get the cards out to the customers.

### The Details

A TopCoder Software Project Manager worked with key stakeholders and documented all of the requirements for the application. TopCoder Software documented the following list of functionality required for the E-Commerce application to be successful:

- Simple form for gift card order entry;
- Automated order confirmation and shipment confirmation emails.
- Extensible to allow for all current and future gift card types;



- Integration with existing credit card processing provider;
- Batch file creation of daily orders to feed GL process;
- Order fulfillment queue to allow corporate staff to finalize and attach shipment tracking information to each order as its processed.

The functional specifications were further documented using high-level use case studies and activity diagrams that were input into the design phase of the project so that technical architects could create the application design. Competing designers took each of these high-level use cases and divided them into more detailed use cases during the design phase, identifying new use cases as the design was detailed.

Next, an architectural diagram was developed to describe the platforms on which the application would reside, followed by a deployment diagram.

The next phase of the methodology – design – occurred offsite through a centralized, secure online forum. For the Gift Card interface, applications were broken down into independent and parallel modules for design and application reuse. Development, integration, and certification were also conducted offsite by TopCoder Project Management and the distributed TopCoder Member Base. Developers competed, and the TopCoder Review Board worked with the winning developers before certification.

## Deployment

Once Integration and Certification of the Gift Card E-Commerce application was complete, the application was deployed to the customer's environment. It was here that integration with all legacy applications took place. Once all issues were resolved, it was configured for production and went live.

## The TopCoder Advantage

The TopCoder Methodology uses competition to ensure the highest quality solution for each phase. At least two designers and developers compete, and a Review Board made up of three of the highest rated TopCoder members evaluated each submission on a number of key metrics. Each component is packaged separately to promote reuse within other areas. In addition, this lowers the impact of changes throughout the project. TopCoder Project Managers create developer forum threads and posts for rapid updates to required changes.

Compared to traditional IP consulting, the TopCoder Component-Based Methodology and reuse solution results in significant savings over the cost of the total application, higher quality in design and development, and consistent deliverables that will save significant time and resources in future phases.

## About TopCoder Software

Utilizing a member base of over 54,000 talented individuals as a distributed development resource, TopCoder Software drives down the cost of software development by introducing reusable components to the development life cycle. TopCoder Software components are developed using industry frameworks such as J2EE and .NET.