

Code smells : Class activity

```
/// <span class="code-SummaryComment"><summary></span>
/// Validate UI Request and throw a business exception if there is any error
/// <span class="code-SummaryComment"></summary></span>
/// <span class="code-SummaryComment"><param name="request">The business process request.
</param></span>
/// <span class="code-SummaryComment"><param name="customerIDFieldLength">Length of the
Customer field.</param></span>
/// <span class="code-SummaryComment"><param name="productFieldLength">Length of the product
field.</param></span>
/// <span class="code-SummaryComment"><returns>Returns true if the Request was validated, else
false.</returns></span>
private bool ValidateRequest( CustomerInquiryRequest request,
    int customerIDFieldLength, int productFieldLength )
{
    if( request.CustomerProduct.ProductNumber != null &&
        request.Customer.CustomerID != null )
    {
        if( request.CustomerProduct.ProductNumber != string.Empty &&
            request.Customer.CustomerID != string.Empty ){
            // Both were populated
            throw new BusinessException(
                HandledErrors.InvalidBothParameterMessage );
        }
        else if( request.Customer.CustomerID == string.Empty &&
            request.CustomerProduct.ProductNumber == string.Empty ) {
            // if objects were instantiated but not populated
            throw new BusinessException(
                HandledErrors.CustomerEmptyMessage );
        }
        else if( request.Customer.CustomerID != string.Empty ){
            // Note: ProductNumber was equal
            // to string.empty Check Customer ID Length
            if( request.Customer.CustomerID.Length >
                customerIDFieldLength ){
                throw new BusinessException(
                    HandledErrors.CustomerInvalidLengthMessage );
            }
        }
        }else{
            // Note: CustomerID was equal
            // to string.empty check Product Length
            if( request.CustomerProduct.ProductNumber.Length >
                productFieldLength ){
                throw new BusinessException(
                    HandledErrors.ProductInvalidLengthMessage );
            }
        }
    }
}
```

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```
    }  
    }  
}else if( request.CustomerProduct.ProductNumber == null &&  
    request.Customer.CustomerID == null ){  
    // Both were null  
    throw new BusinessException( HandledErrors.CustomerEmptyMessage );  
}else if( request.CustomerProduct.ProductNumber == null ){  
    // ProductNumber was null and CustomerID was not null  
    if( request.Customer.CustomerID.Length >  
        customerIDFieldLength ){  
        throw new BusinessException(  
            HandledErrors.CustomerInvalidLengthMessage );  
    }  
}else{ // ProductNumber not null and CustomerID was null  
    // Check Product Length  
    if( request.CustomerProduct.ProductNumber.Length >  
        productFieldLength ) {  
        throw new BusinessException(  
            HandledErrors.ProductInvalidLengthMessage );  
    }  
}  
    // Set objects below with formatted data i.e PadLeft  
    if( request.Customer.CustomerID != null ){  
        request.Customer.CustomerID = request.Customer.CustomerID.PadLeft(  
            customerIDFieldLength,  
            Convert.ToChar( "0", CultureInfo.CurrentCulture ) );  
    }  
    if( request.CustomerProduct.ProductNumber != null ){  
        request.CustomerProduct.ProductNumber =  
            request.CustomerProduct.ProductNumber.PadLeft(  
                productFieldLength,  
                Convert.ToChar( "0", CultureInfo.CurrentCulture ) );  
    }  
    return true;  
}
```

- 1- How easy it is to understand and figure out what the method is supposed to do.
- 2- Identify common design problems (Code smells) in this object-oriented code.
- 3- Think about solutions to fix some code smells