

Intro



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Food Planner

DS301E14

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- ▶ Causes
- ▶ Problem Statement
- ▶ XAML
- ▶ Code Examples
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Problem statement & Information Gathering



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Problem statement

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- How can a software system assist the consumer in planning and managing a meal plan to minimize food waste and simultaneously be flexible enough to support their planning, shopping and cooking habits?



Information Gathering

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Quality Assurance



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Quality assurance

Fulfilling the semester description

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- ▶ Quality assurance (in terms of program testing and results and usability evaluation and results), including arguments for coverage and validity (Semester description)
 - ▶ Program testing = Unit testing
 - ▶ Usability evaluation = IDA (report section 11)

Unit Testing



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Unit testing

What is unit testing?

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- ▶ Initial stage of program testing
- ▶ Isolate smallest testable code
- ▶ Confirm if the unit behaves correctly

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Unit testing

Possible candidates for unit testing

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- ▶ Classes e.g. User, Ingredient or Recipe
 - ▶ Testing their properties or methods
- ▶ List of candidates
 - ▶ MODELS
 - ▶ Graylist
 - ▶ Ingredient
 - ▶ InventoryIngredient*
 - ▶ InventoryListCombinedByQuantity
 - ▶ LastMeal
 - ▶ PublicQuerys
 - ▶ Recipe
 - ▶ RecipeIngredient
 - ▶ SearchResults
 - ▶ ShoppingClass
 - ▶ ShoppingListIngredient
 - ▶ User
 - ▶ VIEWMODELS
 - ▶ InventoryViewModel*
 - ▶ MealPlanViewModel
 - ▶ RecipeSearchViewModel

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Unit testing

Code from InventoryIngredientTests.cs

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```
[TestMethod]
```

```
public void PurchaseDate_AutoSetConstructor_SetToM
```

```
//arrange
```

```
Ingredient testIngredient = new Ingredient();
```

```
DateTime expectedPurchaseDate = DateTime.Now;
```

```
//act – The property is set automatically in the co
```

```
InventoryIngredient testInventoryIngredient = new
```

```
//assert
```

```
Assert.AreEqual(expectedPurchaseDate, testInvento
```

```
}
```

Usability Testing



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IDA

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- ▶ 3 persons
- ▶ Video camera
- ▶ Screen recorder
- ▶ Follow-up questions

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IDA outcome

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- ▶ Critical problems
 - ▶ Scheduled meal page, update button
 - ▶ Deleting meal
 - ▶ Automatical or manual update
- ▶ Serious problems
 - ▶ Planning meal the wrong way
 - ▶ Top bar in recipe screen
 - ▶ Changing the number of days to shop for
- ▶ Cosmetic problems
 - ▶ Dividing of setting screen
 - ▶ Adding ingredient to lists
 - ▶ Too specific rating



Usability notes

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► Waterfall vs Iterative

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Reflection



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missing features

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Optimization

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Evaluation of design

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Requirements

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Problem based requirements

- ▶ To much food being wasted
- ▶ Miscalculations happen in groups
- ▶ Shopping is time consuming
- ▶ Diets are difficult
- ▶ Consumers living alone have the most food waste
- ▶ Consumers living alone have a higher cost per meal