# Lesson 11 – First Project

* Use previous knowledge to create your first big application.

What students should know

**5h**

## Mobile Phones shop application.

A store sells cell phones. The following characteristics are recorded for each phone:

* Model Name
* Screen size,
* Memory capacity,
* RAM,
* Processor
* Warehouse Pieces
* Operating System (Android, IOS)
* Device Price

Build an application with the following:

* 1. Create a class with Phone nameand properties of the above attributes.
  2. Create the methods.
     1. Initialize (Initialize all string properties with "" and all numeric values with 0.
     2. New model (with value input operations on a new object)
     3. Phone sale (accepts a number of pieces and subtracts this quantity from Warehouse Stock)

1. Add 8 different objects for mobile phones with the following elements (The features presented are not real but written for the needs of the task):

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|  | **Model Name** | **Screen** | **Capacity** | **Ram** | **Cpu** | **Os** | **Store** | **Price** |
| 1 | Yallomi | 6.53'' | 64 | 4 | Mediatek | Android | 12 | 150$ |
| 2 | Smith | 6.67" | 64 | 4 | Qualcomm | Android | 4 | 220$ |
| 3 | Taurus | 6.1 | 128 | 4 | Bionic | Ios | 7 | 780$ |
| 4 | Talisman | 5.8’’ | 64 | 4 | Mediatek | Android | 12 | 150$ |
| 5 | Cranberry | 5.8’’ | 32 | 3 | Mediatek | Android | 16 | 130$ |
| 6 | OzOn | 5.8’’ | 32 | 2 | Mediatek | Android | 16 | 90$ |
| 7 | H2O | 5.8’’ | 64 | 3 | Qualcomm | Android | 2 | 170$ |
| 8 | Zeus | 6.67’’ | 128 | 6 | Qualcomm | Android | 4 | 650$ |

*For each page below, it is recommended that you draw a sketch either on paper or with the help of the Inkscape program. You can download it for free from* [*https://inkscape.org/.*](https://inkscape.org/)

1. Create appropriate home screen with the following options.
   * Sell a mobile phone.
   * Warehouse Stock Status.
   * Total Store Revenue.
2. If "Sell Mobile" is selected, then create new B4XPage, and show the names of the eight models and their prices. Don’t forget to sketch it first.

**Teachers tip**

Maybe, you have to help students to call objects from main page.



* 1. Clicking on each phone displays a new screen showing the device's features along with two photos of it. In addition, the feature screen also displays a button to sell the device with number of pieces and a back button.
     1. If the “back” button is pressed, then return to the previous screen.
     2. If the “sell” is pressed, check if the pieces are available in the warehouse or show an out of stock message. On a new screen request the buyer's details:

Customer Name:

Surname

Address

Phone

* + 1. In the same screen display the number of pieces the buyer chose to buy as well as the total price.
    2. When Sell button pressed subtract the quantity purchased from the warehouse and return to the app's home screen.

1. If Warehouse Stock Status is selected, display available mobile models on a new screen(B4XPage) along with the quantities in stock.
2. If "Total Store Revenue" is selected, the store's receipts will be displayed on a new page(B4XPage) until this time.

**Teacher’s tip**

Over the next few pages, you will find, some documents to help students to work on this first project. The project’s solution steps are in the PowerPoint presentation. While the solution is not “optimal” students should understand it, with their current knowledge.



# Timetable

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| Project |  |
| Date |  |
| Student |  |

**Organize your time - What to do and when**

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|  | **Hours** | | | | | | | | |
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# Wireframe Sketching

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| Form Name |  |
| Date |  |
| Student |  |

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# Classes

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| Class Name: |  |
| Date: |  |
| Student: |  |
| **Attributes:** | 1. |
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|  | 4. |
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| **Method** |  |
| **Description:** |  |
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# B4XPages

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| B4XPage Name: |  |
| Date: |  |
| Student: |  |
| **Public Variables:** | 1. |
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| 3. |
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| 6. |
| 7. |
| 8. |
| 9. |
| 10. |
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