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# Income Tax Calculator

**Version <1.0>**

**<Σιρινιάν Αράμ Εμμανουήλ, AM: 2537>**

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Design	

## Versions History

Date	Version	Description	Author
<1/4/2016>	<1.0>	First version the project's base.	Σιρινιάν Αράμ Εμμανουήλ

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## 1. Introduction

This project is about an income tax calculator. The objectives of the project are:

- (1) Flexible creation of taxpayer's profile by using data input files. Data input file's may be both TXT and XML
- (2) Easy and user friendly information management about a set of taxpayers.
- (3) Easy and rich taxpayer's information display.
- (4) Create and save to data output file abilities. Data output file contains practical taxpayer's information.

## 2. Design

<b>Class Name: HeadOfHouseholdTaxpayer</b>	
<b>Responsibilities</b>	<b>Συσχετίσεις</b>
<ul style="list-style-type: none"> <li>○ This class is responsible for computing basic tax for head of household taxpayer's.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inheritance with Taxpayer class.</li> </ul>
<b>Class Name: MarriedFilingJointlyTaxpayer</b>	
<b>Responsibilities</b>	<b>Συσχετίσεις</b>
<ul style="list-style-type: none"> <li>○ This class is responsible for computing basic tax for married filing jointly taxpayer's.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inheritance with Taxpayer class.</li> </ul>
<b>Class Name: MarriedFilingSeparatelyTaxpayer</b>	
<b>Responsibilities</b>	<b>Συσχετίσεις</b>
<ul style="list-style-type: none"> <li>○ This class is responsible for computing basic tax for</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inheritance with Taxpayer class.</li> </ul>

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married filing separately taxpayer's.	
<b>Class Name: SingleTaxpayer</b>	
<b>Responsibilities</b>	<b>Συσχετίσεις</b>
<ul style="list-style-type: none"> <li>○ This class is responsible for computing basic tax for single taxpayer's.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inheritance with Taxpayer class.</li> </ul>
<b>Class Name: TaxpayerFactory</b>	
<b>Responsibilities</b>	<b>Συσχετίσεις</b>
<ul style="list-style-type: none"> <li>○ This class is responsible for creating classes which inheritance Taxpayer class.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Association with MarriedFilingJointlyTaxpayer class.</li> <li>▪ Association with HeadOfHousehold class.</li> <li>▪ Association with MarriedFilingSeparatelyTaxpayer class.</li> <li>▪ Association with SingleTaxpayer class.</li> </ul>
<b>Class Name: Taxpayer</b>	
<b>Responsibilities</b>	<b>Συσχετίσεις</b>
<ul style="list-style-type: none"> <li>○ This class is responsible for creating the taxpayer's entity with all associating variables and methods.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Aggregation with Receipt class.</li> <li>▪ Dependency with Company class.</li> </ul>
<b>Class Name: Receipt</b>	

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Responsibilities	Συσχετίσεις
<ul style="list-style-type: none"> <li>○ This class is responsible for storing all receipt's associating information.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Composition aggregation with Company class.</li> </ul>
<b>Class Name: Company</b>	
Responsibilities	Συσχετίσεις
<ul style="list-style-type: none"> <li>○ This class is responsible for storing all company's associating information.</li> </ul>	<ul style="list-style-type: none"> <li>▪ None</li> </ul>
<b>Class Name: InputManager</b>	
Responsibilities	Συσχετίσεις
<ul style="list-style-type: none"> <li>○ This class is responsible for getting all needed information about a taxpayer his receipts and their companies from a file.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Association with TaxpayerFactory class.</li> <li>▪ Association with Taxpayer class</li> </ul>
<b>Class Name: OutputManager</b>	
Responsibilities	Συσχετίσεις
<ul style="list-style-type: none"> <li>○ This class is responsible for storing taxpayer's information to Log file's , for rewriting Info file's and showing charts of taxpayer's data.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Association with Taxpayer class.</li> <li>▪ Dependency with Receipt class.</li> <li>▪ Dependency with Company class.</li> </ul>

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<b>Class Name: AccountsManager</b>	
<b>Responsibilities</b>	<b>Συσχετίσεις</b>
<ul style="list-style-type: none"> <li>○ This class is responsible for storing and managing Taxpayer profile's as well providing methods to do so.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Composition aggregation with InputManager class.</li> <li>▪ Composition aggregation with OutputManager class.</li> <li>▪ Aggregation with Taxpayer class.</li> </ul>
<b>Class Name: GuiManager</b>	
<b>Responsibilities</b>	<b>Συσχετίσεις</b>
<ul style="list-style-type: none"> <li>○ This class is responsible for the interacting between user and program.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Composition aggregation with AccountsManager class.</li> <li>▪ Association with Taxpayer class.</li> </ul>

### 3. Implementation