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|  | **2014** |
|  | ΑΤΕΙ Πειραιά – Μηχανικών Ηλεκτρονικών Υπολογιστικών Συστημάτων  Αποστολοπούλου Ιουλία – ΑΜ: 40557 – Εξάμηνο 7ο Βουρνά Μαρία – ΑΜ: 39570 – Εξάμηνο 8ο  Πίτσου Ελένη – ΑΜ: 39282 – Εξάμηνο 8ο |

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| **[On-line συστημα αξιολογησησ προιοντων]** |
| **Εργασία Εργαστηρίου Μηχανικής Λογισμικού** |

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# Ανάλυση Λειτουργικών Απαιτήσεων

## Εισαγωγή

### Σκοπός του κειμένου

Το παρόν έγγραφο αποσκοπεί στον προσδιορισμό των απαιτήσεων λογισμικού online συστήματος αξιολόγησης προϊόντων. Η ανάπτυξη του συστήματος αυτού γίνεται για τις ανάγκες εταιρίας παροχής ηλεκτρονικών ειδών.

### Προορισμένο ακροατήριο και προτάσεις ανάγνωσης

Το κείμενο αυτό απευθύνεται στο διευθυντή της εταιρίας ηλεκτρονικών ειδών, καθώς και στους διαχειριστές του συστήματος αξιολόγησης. Στη συνέχεια του εγγράφου περιέχονται όλες οι απαραίτητες πληροφορίες για το εν λόγω λογισμικό. Συνίσταται να ακολουθηθεί κατά την ανάγνωση η σειρά με την οποία έχει γραφτεί το κείμενο.

### Στόχος και εύρος του προϊόντος

Στόχος του συστήματος αξιολόγησης είναι να μπορούν οι χρήστες να αξιολογήσουν τα προϊόντα της εταιρίας ηλεκτρονικών ειδών με τα οποία έχουν έρθει σε επαφή ή έχουν στην κατοχή τους. Σκοπός αυτού είναι να γνωρίζει η εταιρία ποια η άποψη των πελατών της σχετικά με τα προϊόντα της. Τα οφέλη της ενέργειας αυτής είναι από την πλευρά των χρηστών στο να έχουν μια γνώμη σχετικά με ένα προϊόν που επιθυμούν να αγοράσουν πριν προβούν στην αγορά του και να το συγκρίνουν με άλλα αντίστοιχα, βασιζόμενοι στην εμπειρία άλλων κατόχων του. Από την πλευρά της εταιρίας, στόχος είναι η περεταίρω προβολή της με σκοπό την αύξηση των πωλήσεων και την καλύτερη φήμη στο καταναλωτικό κοινό.

### Αναφορές

Καταστατικό εταιρίας (ΚΕ45)

Λογιστικό βιβλίο (ΛΒ2)

## Γενική Περιγραφή

### Προέλευση και προοπτική του προϊόντος

Το συγκεκριμένο λογισμικό αποτελεί ένα νέο, ανεξάρτητο προϊόν. Επίσης δε σχετίζεται με άλλα παρόμοια συστήματα, ούτε αντικαθιστά κάποιο ήδη υπάρχον.

### Γενική περιγραφή των λειτουργιών του προϊόντος

* Αναζήτηση προϊόντος
* Δυνατότητα συγγραφής review
* Βαθμολόγηση προϊόντος
* Παροχή στατιστικών πληροφοριών

### Κατηγορίες χρηστών

Το λογισμικό πρόκειται να χρησιμοποιείται από τον ή τους διαχειριστές του και από οποιονδήποτε χρήστη το επιθυμεί, μέσω Internet. Κάποιες λειτουργίες είναι διαθέσιμες μόνο στους διαχειριστές, ενώ άλλες παρέχονται κυρίως σε εγγεγραμμένους χρήστες του συστήματος. Σχετικές λεπτομέρειες δίνονται στη συνέχεια του εγγράφου. Επίσης, για την εγγραφή στο σύστημα αξιολόγησης (είτε χρηστών, είτε διαχειριστών), απαιτείται η καταχώρηση username και password. Δίνεται η δυνατότητα μετά την πρώτη εγγραφή, τα στοιχεία αυτά να αλλαχθούν ανά πάσα στιγμή. Τέλος, εάν αρχικά υπάρχει μόνο ένας διαχειριστής για το σύστημα, μπορεί στη συνέχεια να προσθέσει και άλλους.

### Περιβάλλον λειτουργίας

Το περιβάλλον στο οποίο θα λειτουργήσει το λογισμικό αποτελείται από έναν server με λειτουργικό σύστημα Linux, ο οποίος είναι εξοπλισμένος με επεξεργαστή Pentium Quad Core και μνήμη RAM 8 GB. Για τους clients η ελάχιστες απαιτήσεις λογισμικού είναι Windows XP ή νεότερο και από πλευράς υλικού, επεξεργαστής Pentium 1GHz και 1 GB μνήμη RAM.

### Περιορισμοί στη σχεδίαση και την υλοποίηση

Ο μοναδικός περιορισμός κατά τη σχεδίαση και την υλοποίηση του συστήματος αξιολόγησης είναι η ADSL γραμμή που χρησιμοποιούν οι χρήστες του. Η ελάχιστη ταχύτητα αυτής είναι στα 2Mbps.

### Τεκμηρίωση για το χρήστη

Μαζί με το λογισμικό παραδίδεται ένα εγχειρίδιο χρήσης για τη διευκόλυνση των διαχειριστών του συστήματος. Επίσης παρέχεται δυνατότητα on-line βοήθειας στους χρήστες του συστήματος αξιολόγησης, ώστε να είναι πιο εύκολη η περιήγηση τους σε αυτό σε περίπτωση που αντιμετωπίσουν κάποιο πρόβλημα. Για οποιοδήποτε άλλο πρόβλημα, οι χρήστες μπορούν να επικοινωνήσουν και με τους διαχειριστές μέσω e-mail, τα οποία είναι διαθέσιμα στο σύστημα αξιολόγησης.

## Απαιτήσεις για τις εξωτερικές διεπαφές

### Διεπαφή χρήστη

Το λογισμικό περιλαμβάνει ένα λιτό και γρήγορο web interface. Οι χρήστες δε θα έχουν καμία δυσκολία κατά τη χρήση του, καθώς τα GUI που περιλαμβάνει είναι εύχρηστα και χωρίς περίπλοκες επιλογές.

### Διεπαφές επικοινωνιών

Το σύστημα αξιολόγησης προσφέρει τη δυνατότητα στους διαχειριστές να έχουν πρόσβαση σε στατιστικές πληροφορίες που συλλέγονται από τις αξιολογήσεις των χρηστών. Αυτό σημαίνει ότι υπάρχει ανάγκη αποθήκευσης των βαθμολογιών σε μια βάση δεδομένων. Από τη βάση αυτή πραγματοποιείται δυναμικά ανανέωση των στατιστικών πληροφοριών, ώστε να είναι ανά πάσα στιγμή διαθέσιμες στους διαχειριστές του συστήματος.

## Λειτουργίες συστήματος

### Αναζήτηση προϊόντος

Οι χρήστες του συστήματος αξιολόγησης έχουν τη δυνατότητα να κάνουν αναζήτηση του προϊόντος το οποίος ενδιαφέρονται να βαθμολογήσουν ή να δουν τις βαθμολογίες που έχουν καταχωρήσει άλλοι χρήστες. Η λειτουργία αυτή είναι διαθέσιμη σε όλους τους χρήστες, χωρίς την ανάγκη να συνδεθούν στο σύστημα. Επίσης υπάρχουν για κάθε προϊόν παραπομπές στις ιστοσελίδες τους, ώστε να μάθουν περισσότερες λεπτομέρειες σχετικά με αυτό οι χρήστες που επιθυμούν να το αγοράσουν. Για την ευκολότερη αναζήτηση υπάρχουν κάποια κριτήρια που μπορούν να χρησιμοποιήσουν οι χρήστες, όπως η κατηγορία στην οποία ανήκει το προϊόν, κάποια λέξη-κλειδί, η τιμή του και η κατασκευάστρια εταιρία.

### Δυνατότητα συγγραφής review

Όσοι χρήστες πραγματοποιούν εγγραφή στο σύστημα αξιολόγησης και στη συνέχεια συνδέονται σε αυτό, μπορούν να καταχωρήσουν ένα σύντομο κείμενο σχετικά με ένα προϊόν το οποίο έχουν στην κατοχή τους ή χρησιμοποίησαν. Τα review αυτά δίνουν μια πιο λεπτομερή άποψη των χρηστών για τα προϊόντα, με λεπτομέρειες για τα θετικά τους χαρακτηριστικά, καθώς και πιθανά προβλήματα που παρουσιάστηκαν κατά τη χρήση τους.

Επίσης, τα review για τα προϊόντα μπορούν να τα διαβάσουν όλοι οι χρήστες που θα επιλέξουν το αντίστοιχο προϊόν, χωρίς όμως να μπορούν να δουν τα προσωπικά δεδομένα του κάθε χρήστη που τα έχει καταχωρήσει.

### Βαθμολόγηση προϊόντος

Οι χρήστες που επιθυμούν να αξιολογήσουν ένα από τα διαθέσιμα προϊόντα του συστήματος μπορούν να το βαθμολογήσουν βασιζόμενοι σε πέντε διαφορετικές κατηγορίες που σχετίζονται με αυτό. Αυτές είναι η τιμή, η κατανάλωση ενέργειας, το παρεχόμενο service, η αξιοπιστία του και η παρεχόμενη on-line βοήθεια για το εν λόγω προϊόν. Η κλίμακα της βαθμολόγησης είναι από το 1 έως το 5, με το ένα να αντιστοιχεί στο Πολύ κακό και το 5 στο Πολύ καλό. Επίσης, μόλις καταχωρήσει ο χρήστης το βαθμό που επιθυμεί και στις πέντε κατηγορίες, εμφανίζεται σε ένα πλαίσιο η τελική βαθμολογία αξιολόγησης του προϊόντος, η οποία προκύπτει από το μέσο όρο όλων των βαθμών. Όπως η συγγραφή review, έτσι και η βαθμολόγηση είναι δυνατή μόνο σε εγγεγραμμένους χρήστες.

### Παροχή στατιστικών πληροφοριών

Όπως προαναφέρθηκε, το λογισμικό παρέχει στους διαχειριστές του συστήματος στατιστικές πληροφορίες σχετικές με τις αξιολογήσεις που κάνουν on-line οι χρήστες για τα διαθέσιμα προϊόντα. Οι πληροφορίες αυτές δεν είναι προσβάσιμες από τους χρήστες του συστήματος.

## Μη λειτουργικές απαιτήσεις

### Επιδόσεις

Για την καλύτερη και πιο ευχάριστη χρήση του λογισμικού είναι απαραίτητο η συναλλαγή του χρήστη με το σύστημα να μπορεί να επιτευχθεί σε χρόνο μικρότερο των 4 δευτερολέπτων. Επίσης η εμφάνιση των στατιστικών αξιολόγησης στους διαχειριστές καλό θα ήταν να γίνεται σε χρόνο που να μη φτάνει τα 10 δευτερόλεπτα. Τέλος, κρίνεται απαραίτητη η υποστήριξη 5000 ασύγχρονων χρηστών στο σύστημα, ώστε να είναι εφικτή η πρόσβαση σε αυτό από όσους περισσότερους χρήστες το επιθυμούν, χωρίς την ύπαρξη προβλημάτων.

### Ασφάλεια πληροφορίας

Για την ασφάλεια των δεδομένων που συλλέγονται από τις αξιολογήσεις των χρηστών, απαιτείται η διατήρηση αντιγράφων ασφαλείας. Αυτή καλό θα ήταν να γίνεται ανά τακτά χρονικά διαστήματα, ώστε να ελαχιστοποιηθεί η πιθανότητα απώλειας δεδομένων αξιολόγησης ή πληροφοριών των χρηστών. Το διάστημα αυτό συνίσταται να είναι κάθε τρεις μήνες και τα αντίγραφα να δημιουργούνται αυτόματα.

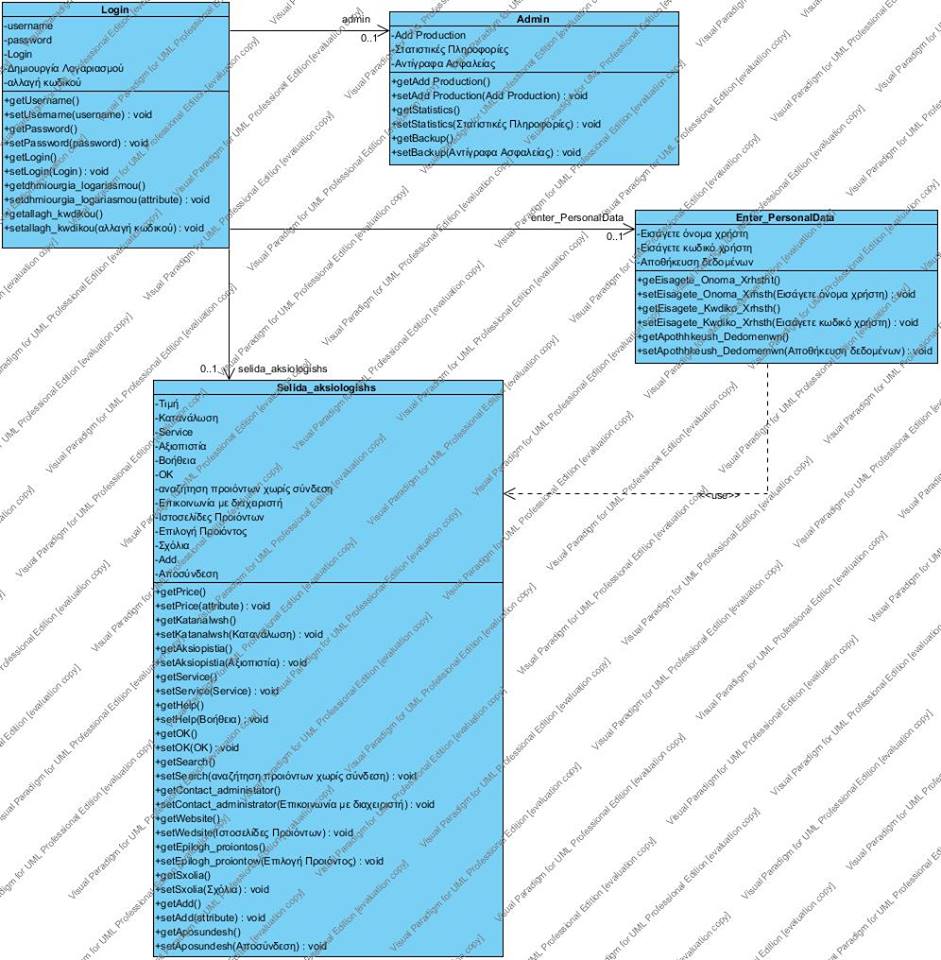
### Ποιότητα λογισμικού

Για τη διασφάλιση της ποιότητας του λογισμικού, θεωρείται αναγκαία η εκτέλεση Unit testing μόλις ολοκληρωθεί η υλοποίησή του. Επίσης, είναι επιθυμητό να περάσει με επιτυχία από Stress test με 5000 χρήστες. Η διάρκεια υλοποίησης του συστήματος ανέρχεται στους 4 μήνες, ενώ απαιτείται και μια περίοδος καλής λειτουργίας του λογισμικού μετά την υλοποίηση του. Αυτή πρέπει να διαρκέσει 4 μήνες.



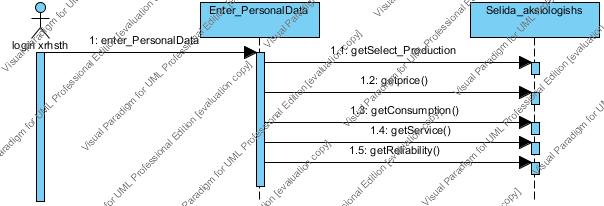
# Διαγράμματα UML

## Διάγραμμα κλάσεων

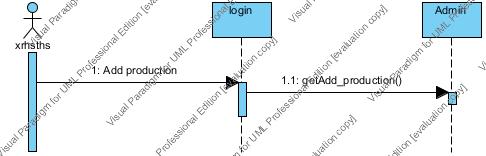


## Διαγράμματα ακολουθίας

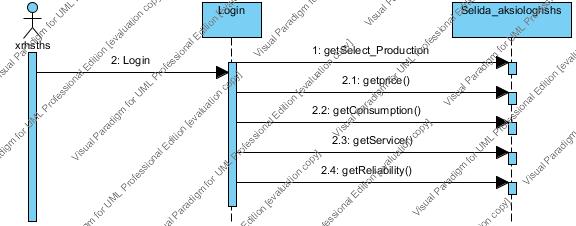
### Δημιουργία χρήστη και αξιολόγηση



### Προσθήκη προϊόντων από το χρήστη

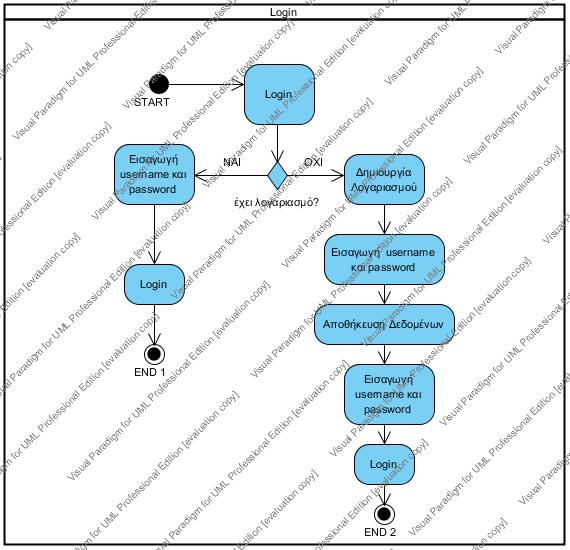


### Login και αξιολόγηση

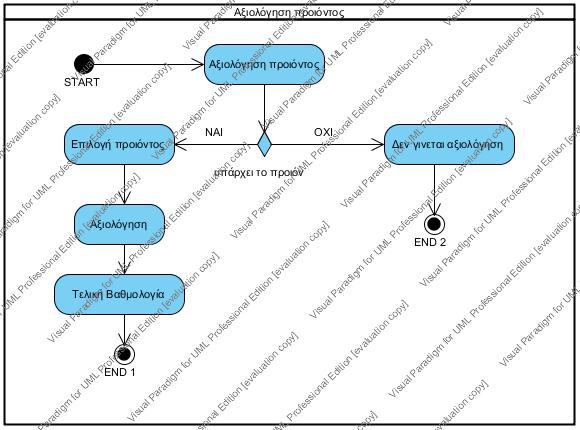


## Διαγράμματα δραστηριότητας

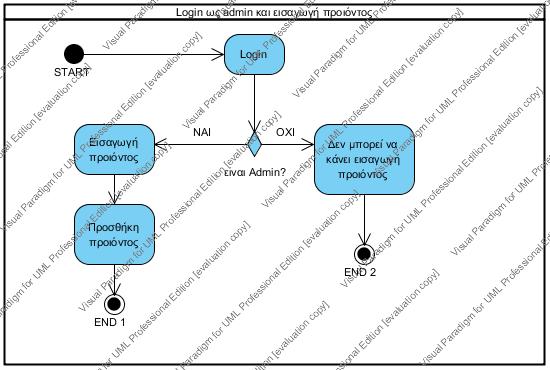
### Login



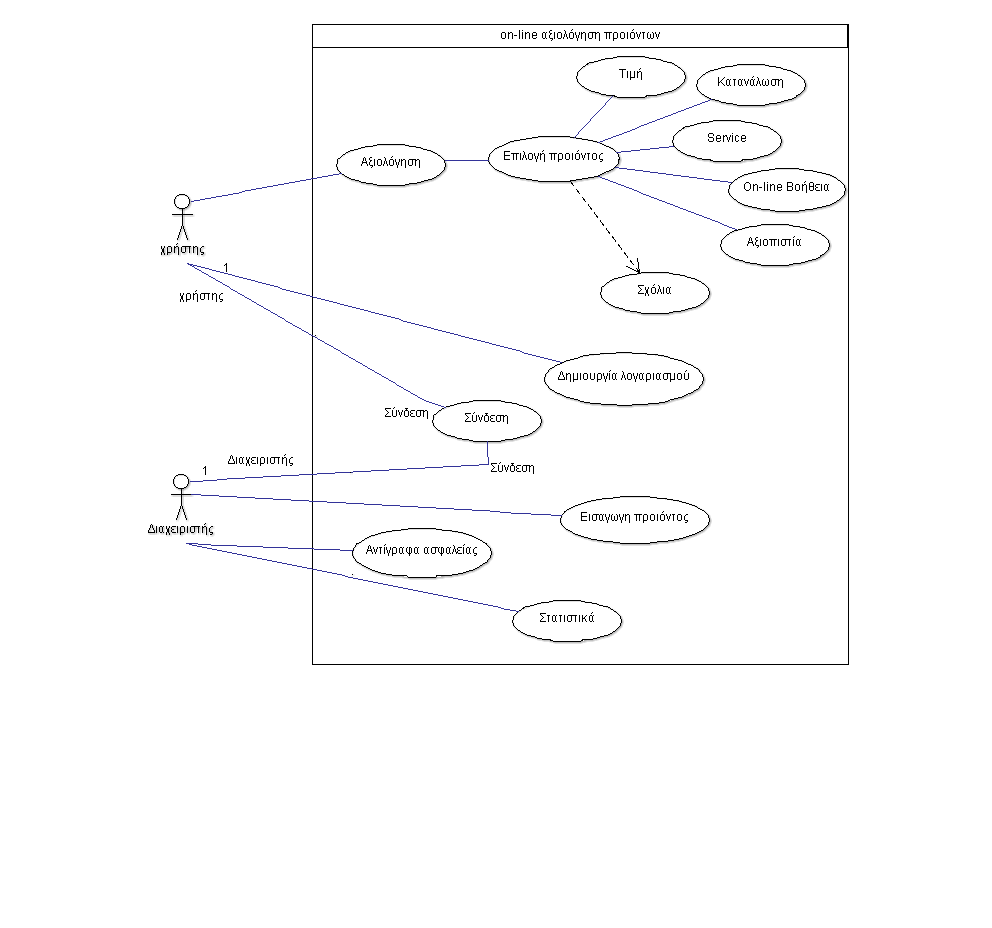
### Αξιολόγηση προϊόντος



### Εισαγωγή προϊόντων από διαχειριστή



### Διάγραμμα Περιπτώσεων Χρήσης



**Κατάλογος Περιπτώσεων Χρήσης**

|  |  |
| --- | --- |
| Εμπλεκόμενοι Ρόλοι | Περιπτώσεις Χρήσης |
| Χρήστης | UC-1. Σύνδεση  UC-2. Δημιουργία λογαργιασμού  UC-3. Αξιολόγηση  UC-4. Επιλογή προιόντος  UC-5. Τιμή  UC-6. Κατανάλωση  UC-7. Service  UC-8. On-line Βοήθεια  UC-9. Αξιοπιστία  UC-10. Σχόλια |
| Διαχειριστής | UC-1. Σύνδεση  UC-11. Εισαγωγή προιόντος  UC-12. Αντίγραφα ασφαλείας  UC-13. Στατιστικά |

# Static analysis (PMD)

## Αρχικά αποτελέσματα

src/Admin.java:17: All classes and interfaces must belong to a named package

src/Admin.java:22: Found non-transient, non-static member. Please mark as transient or provide accessors.

src/Admin.java:22: Private field 'textField' could be made final; it is only initialized in the declaration or constructor.

src/Admin.java:27: Parameter 'args' is not assigned and could be declared final

src/Admin.java:28: To be compliant to J2EE, a webapp should not use any thread.

src/Admin.java:31: Local variable 'frame' could be declared final

src/Admin.java:33: Avoid catching generic exceptions such as NullPointerException, RuntimeException, Exception in try-catch block

src/Admin.java:34: Avoid printStackTrace(); use a logger call instead.

src/Admin.java:43: It is a good practice to call super() in a constructor

src/Admin.java:59: Ensure that resources like this Connection object are closed after use

src/Admin.java:59: Local variable 'con' could be declared final

src/Admin.java:61: Local variable 'sql' could be declared final

src/Admin.java:62: Avoid variables with short names like st

src/Admin.java:62: Local variable 'st' could be declared final

src/Admin.java:63: Avoid variables with short names like rs

src/Admin.java:63: Ensure that resources like this ResultSet object are closed after use

src/Admin.java:63: Local variable 'rs' could be declared final

src/Admin.java:71: Avoid catching generic exceptions such as NullPointerException, RuntimeException, Exception in try-catch block

src/Admin.java:72: The String literal "Error" appears 4 times in this file; the first occurrence is on line 72

src/Admin.java:82: Local variable 'btnNewButton' could be declared final

src/Admin.java:85: Avoid variables with short names like e

src/Admin.java:85: Parameter 'e' is not assigned and could be declared final

src/Admin.java:87: Local variable 'proion' could be declared final

src/Admin.java:92: Potential violation of Law of Demeter (method chain calls)

src/Admin.java:97: Ensure that resources like this Connection object are closed after use

src/Admin.java:97: Local variable 'con' could be declared final

src/Admin.java:100: Local variable 'sql' could be declared final

src/Admin.java:101: Avoid variables with short names like st

src/Admin.java:101: Local variable 'st' could be declared final

src/Admin.java:101: Potential violation of Law of Demeter (object not created locally)

src/Admin.java:102: Potential violation of Law of Demeter (object not created locally)

src/Admin.java:110: Avoid catching generic exceptions such as NullPointerException, RuntimeException, Exception in try-catch block

src/Admin.java:119: Ensure that resources like this Connection object are closed after use

src/Admin.java:119: Local variable 'con' could be declared final

src/Admin.java:120: Avoid variables with short names like st

src/Admin.java:120: Local variable 'st' could be declared final

src/Admin.java:120: Potential violation of Law of Demeter (object not created locally)

src/Admin.java:121: Avoid variables with short names like rs

src/Admin.java:121: Ensure that resources like this ResultSet object are closed after use

src/Admin.java:121: Local variable 'rs' could be declared final

src/Admin.java:121: Potential violation of Law of Demeter (object not created locally)

src/Admin.java:123: Potential violation of Law of Demeter (object not created locally)

src/Admin.java:125: Potential violation of Law of Demeter (object not created locally)

src/Admin.java:133: Avoid catching generic exceptions such as NullPointerException, RuntimeException, Exception in try-catch block

src/Admin.java:153: Local variable 'label' could be declared final

src/Enter\_RersonalData.java:20: All classes and interfaces must belong to a named package

src/Enter\_RersonalData.java:26: Found non-transient, non-static member. Please mark as transient or provide accessors.

src/Enter\_RersonalData.java:26: Perhaps 'contentPane' could be replaced by a local variable.

src/Enter\_RersonalData.java:26: Private field 'contentPane' could be made final; it is only initialized in the declaration or constructor.

src/Enter\_RersonalData.java:27: Found non-transient, non-static member. Please mark as transient or provide accessors.

src/Enter\_RersonalData.java:27: Private field 'textField' could be made final; it is only initialized in the declaration or constructor.

src/Enter\_RersonalData.java:28: Found non-transient, non-static member. Please mark as transient or provide accessors.

src/Enter\_RersonalData.java:28: Private field 'passwordField' could be made final; it is only initialized in the declaration or constructor.

src/Enter\_RersonalData.java:33: Parameter 'args' is not assigned and could be declared final

src/Enter\_RersonalData.java:34: To be compliant to J2EE, a webapp should not use any thread.

src/Enter\_RersonalData.java:37: Local variable 'frame' could be declared final

src/Enter\_RersonalData.java:39: Avoid catching generic exceptions such as NullPointerException, RuntimeException, Exception in try-catch block

src/Enter\_RersonalData.java:40: Avoid printStackTrace(); use a logger call instead.

src/Enter\_RersonalData.java:49: It is a good practice to call super() in a constructor

src/Enter\_RersonalData.java:58: Local variable 'label' could be declared final

src/Enter\_RersonalData.java:67: Local variable 'label\_1' could be declared final

src/Enter\_RersonalData.java:67: Only variables that are final should contain underscores (except for underscores in standard prefix/suffix), 'label\_1' is not final.

src/Enter\_RersonalData.java:75: Local variable 'save' could be declared final

src/Enter\_RersonalData.java:78: Avoid variables with short names like e

src/Enter\_RersonalData.java:78: Parameter 'e' is not assigned and could be declared final

src/Enter\_RersonalData.java:80: Found 'DU'-anomaly for variable 'username' (lines '80'-'125').

src/Enter\_RersonalData.java:80: Local variable 'username' could be declared final

src/Enter\_RersonalData.java:81: Found 'DU'-anomaly for variable 'password' (lines '81'-'125').

src/Enter\_RersonalData.java:81: Local variable 'password' could be declared final

src/Enter\_RersonalData.java:86: Potential violation of Law of Demeter (method chain calls)

src/Enter\_RersonalData.java:86: Potential violation of Law of Demeter (method chain calls)

src/Enter\_RersonalData.java:92: Ensure that resources like this Connection object are closed after use

src/Enter\_RersonalData.java:92: Local variable 'con' could be declared final

src/Enter\_RersonalData.java:93: Local variable 'sql1' could be declared final

src/Enter\_RersonalData.java:97: Local variable 'st1' could be declared final

src/Enter\_RersonalData.java:97: Potential violation of Law of Demeter (object not created locally)

src/Enter\_RersonalData.java:98: Potential violation of Law of Demeter (object not created locally)

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src/Enter\_RersonalData.java:113: Avoid empty catch blocks

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src/Login.java:24: Private field 'contentPane' could be made final; it is only initialized in the declaration or constructor.

src/Login.java:25: Found non-transient, non-static member. Please mark as transient or provide accessors.

src/Login.java:25: Private field 'textField' could be made final; it is only initialized in the declaration or constructor.

src/Login.java:26: Found non-transient, non-static member. Please mark as transient or provide accessors.

src/Login.java:26: Private field 'passField' could be made final; it is only initialized in the declaration or constructor.

src/Login.java:33: Parameter 'args' is not assigned and could be declared final

src/Login.java:34: To be compliant to J2EE, a webapp should not use any thread.

src/Login.java:37: Local variable 'frame' could be declared final

src/Login.java:39: Avoid catching generic exceptions such as NullPointerException, RuntimeException, Exception in try-catch block

src/Login.java:40: Avoid printStackTrace(); use a logger call instead.

src/Login.java:49: It is a good practice to call super() in a constructor

src/Login.java:63: Local variable 'btnNewButton' could be declared final

src/Login.java:65: Avoid variables with short names like e

src/Login.java:65: Parameter 'e' is not assigned and could be declared final

src/Login.java:67: Local variable 'user' could be declared final

src/Login.java:68: Found 'DU'-anomaly for variable 'strpass' (lines '68'-'145').

src/Login.java:68: Found 'DU'-anomaly for variable 'strpass' (lines '68'-'145').

src/Login.java:68: Local variable 'strpass' could be declared final

src/Login.java:73: Ensure that resources like this Connection object are closed after use

src/Login.java:73: Local variable 'con' could be declared final

src/Login.java:74: Avoid variables with short names like st

src/Login.java:74: Local variable 'st' could be declared final

src/Login.java:74: Potential violation of Law of Demeter (object not created locally)

src/Login.java:75: Avoid variables with short names like rs

src/Login.java:75: Ensure that resources like this ResultSet object are closed after use

src/Login.java:75: Local variable 'rs' could be declared final

src/Login.java:75: Potential violation of Law of Demeter (object not created locally)

src/Login.java:77: Potential violation of Law of Demeter (object not created locally)

src/Login.java:80: Local variable 'dbpass' could be declared final

src/Login.java:80: Potential violation of Law of Demeter (object not created locally)

src/Login.java:81: Potential violation of Law of Demeter (object not created locally)

src/Login.java:84: Position literals first in String comparisons

src/Login.java:84: Potential violation of Law of Demeter (object not created locally)

src/Login.java:86: Local variable 'form' could be declared final

src/Login.java:90: Local variable 'aksiologhsh' could be declared final

src/Login.java:109: Avoid empty catch blocks

src/Login.java:109: Avoid empty catch blocks

src/Login.java:118: Local variable 'lblNewLabel' could be declared final

src/Login.java:122: Local variable 'lblNewLabel\_1' could be declared final

src/Login.java:122: Only variables that are final should contain underscores (except for underscores in standard prefix/suffix), 'lblNewLabel\_1' is not final.

src/Login.java:130: Local variable 'button' could be declared final

src/Login.java:132: Avoid variables with short names like e

src/Login.java:132: Parameter 'e' is not assigned and could be declared final

src/Login.java:134: Local variable 'form1' could be declared final

src/Main.java:1: A Classname should have a minimum of five characters

src/Main.java:1: All classes and interfaces must belong to a named package

src/Main.java:1: All methods are static. Consider using Singleton instead. Alternatively, you could add a private constructor or make the class abstract to silence this warning.

src/Main.java:6: Parameter 'args' is not assigned and could be declared final

src/Main.java:8: Local variable 'LGForm' could be declared final

src/Main.java:8: Variables should start with a lowercase character, 'LGForm' starts with uppercase character.

src/Selida\_aksiologhshs.java:23: All classes and interfaces must belong to a named package

src/Selida\_aksiologhshs.java:29: Found non-transient, non-static member. Please mark as transient or provide accessors.

src/Selida\_aksiologhshs.java:29: Perhaps 'contentPane' could be replaced by a local variable.

src/Selida\_aksiologhshs.java:29: Private field 'contentPane' could be made final; it is only initialized in the declaration or constructor.

src/Selida\_aksiologhshs.java:32: Found non-transient, non-static member. Please mark as transient or provide accessors.

src/Selida\_aksiologhshs.java:32: Private field 'textField' could be made final; it is only initialized in the declaration or constructor.

src/Selida\_aksiologhshs.java:33: Found non-transient, non-static member. Please mark as transient or provide accessors.

src/Selida\_aksiologhshs.java:33: Only variables that are final should contain underscores (except for underscores in standard prefix/suffix), 'textField\_1' is not final.

src/Selida\_aksiologhshs.java:33: Perhaps 'textField\_1' could be replaced by a local variable.

src/Selida\_aksiologhshs.java:33: Private field 'textField\_1' could be made final; it is only initialized in the declaration or constructor.

src/Selida\_aksiologhshs.java:43: Parameter 'args' is not assigned and could be declared final

src/Selida\_aksiologhshs.java:44: To be compliant to J2EE, a webapp should not use any thread.

src/Selida\_aksiologhshs.java:47: Local variable 'frame' could be declared final

src/Selida\_aksiologhshs.java:49: Avoid catching generic exceptions such as NullPointerException, RuntimeException, Exception in try-catch block

src/Selida\_aksiologhshs.java:50: Avoid printStackTrace(); use a logger call instead.

src/Selida\_aksiologhshs.java:60: It is a good practice to call super() in a constructor

src/Selida\_aksiologhshs.java:93: Avoid excessively long variable names like aksiopistiaSpinner

src/Selida\_aksiologhshs.java:113: Ensure that resources like this Connection object are closed after use

src/Selida\_aksiologhshs.java:113: Local variable 'con' could be declared final

src/Selida\_aksiologhshs.java:115: Local variable 'sql' could be declared final

src/Selida\_aksiologhshs.java:116: Avoid variables with short names like st

src/Selida\_aksiologhshs.java:116: Local variable 'st' could be declared final

src/Selida\_aksiologhshs.java:117: Avoid variables with short names like rs

src/Selida\_aksiologhshs.java:117: Ensure that resources like this ResultSet object are closed after use

src/Selida\_aksiologhshs.java:117: Local variable 'rs' could be declared final

src/Selida\_aksiologhshs.java:125: Avoid catching generic exceptions such as NullPointerException, RuntimeException, Exception in try-catch block

src/Selida\_aksiologhshs.java:142: Local variable 'btnOk' could be declared final

src/Selida\_aksiologhshs.java:145: Avoid variables with short names like e

src/Selida\_aksiologhshs.java:145: Parameter 'e' is not assigned and could be declared final

src/Selida\_aksiologhshs.java:163: Local variable 'timh1' could be declared final

src/Selida\_aksiologhshs.java:167: Local variable 'energy1' could be declared final

src/Selida\_aksiologhshs.java:171: Local variable 'service1' could be declared final

src/Selida\_aksiologhshs.java:176: Local variable 'label' could be declared final

src/Selida\_aksiologhshs.java:180: Local variable 'label\_1' could be declared final

src/Selida\_aksiologhshs.java:180: Only variables that are final should contain underscores (except for underscores in standard prefix/suffix), 'label\_1' is not final.

src/Selida\_aksiologhshs.java:188: Parameter 'arg0' is not assigned and could be declared final

src/Selida\_aksiologhshs.java:194: Local variable 'price' could be declared final

src/Selida\_aksiologhshs.java:195: Local variable 'energy' could be declared final

src/Selida\_aksiologhshs.java:196: Local variable 'service' could be declared final

src/Selida\_aksiologhshs.java:197: Local variable 'aksiopistia' could be declared final

src/Selida\_aksiologhshs.java:198: Local variable 'help' could be declared final

src/Selida\_aksiologhshs.java:205: Ensure that resources like this Connection object are closed after use

src/Selida\_aksiologhshs.java:205: Local variable 'con' could be declared final

src/Selida\_aksiologhshs.java:208: Local variable 'sql' could be declared final

src/Selida\_aksiologhshs.java:208: The String literal "'" appears 6 times in this file; the first occurrence is on line 208

src/Selida\_aksiologhshs.java:208: The String literal "'where proionta='" appears 6 times in this file; the first occurrence is on line 208

src/Selida\_aksiologhshs.java:209: Local variable 'sql1' could be declared final

src/Selida\_aksiologhshs.java:210: Local variable 'sql2' could be declared final

src/Selida\_aksiologhshs.java:211: Local variable 'sql3' could be declared final

src/Selida\_aksiologhshs.java:212: Local variable 'sql4' could be declared final

src/Selida\_aksiologhshs.java:214: Avoid excessively long variable names like Synoliki\_vathmologia

src/Selida\_aksiologhshs.java:214: Local variable 'Synoliki\_vathmologia' could be declared final

src/Selida\_aksiologhshs.java:214: Only variables that are final should contain underscores (except for underscores in standard prefix/suffix), 'Synoliki\_vathmologia' is not final.

src/Selida\_aksiologhshs.java:214: Useless parentheses.

src/Selida\_aksiologhshs.java:214: Useless parentheses.

src/Selida\_aksiologhshs.java:214: Variables should start with a lowercase character, 'Synoliki\_vathmologia' starts with uppercase character.

src/Selida\_aksiologhshs.java:215: Local variable 'sql5' could be declared final

src/Selida\_aksiologhshs.java:220: Avoid variables with short names like st

src/Selida\_aksiologhshs.java:220: Local variable 'st' could be declared final

src/Selida\_aksiologhshs.java:220: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:221: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:223: Local variable 'st1' could be declared final

src/Selida\_aksiologhshs.java:223: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:224: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:226: Local variable 'st2' could be declared final

src/Selida\_aksiologhshs.java:226: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:227: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:229: Local variable 'st3' could be declared final

src/Selida\_aksiologhshs.java:229: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:230: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:232: Local variable 'st4' could be declared final

src/Selida\_aksiologhshs.java:232: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:233: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:235: Local variable 'st5' could be declared final

src/Selida\_aksiologhshs.java:235: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:236: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:242: Avoid catching generic exceptions such as NullPointerException, RuntimeException, Exception in try-catch block

src/Selida\_aksiologhshs.java:262: Local variable 'label\_2' could be declared final

src/Selida\_aksiologhshs.java:262: Only variables that are final should contain underscores (except for underscores in standard prefix/suffix), 'label\_2' is not final.

src/Selida\_aksiologhshs.java:266: Local variable 'label\_3' could be declared final

src/Selida\_aksiologhshs.java:266: Only variables that are final should contain underscores (except for underscores in standard prefix/suffix), 'label\_3' is not final.

src/Selida\_aksiologhshs.java:272: Local variable 'lblOnline' could be declared final

src/Selida\_aksiologhshs.java:276: Local variable 'label\_4' could be declared final

src/Selida\_aksiologhshs.java:276: Only variables that are final should contain underscores (except for underscores in standard prefix/suffix), 'label\_4' is not final.

## Αποτελέσματα μετά τις διορθώσεις

src/Admin.java:17: All classes and interfaces must belong to a named package

src/Admin.java:22: Found non-transient, non-static member. Please mark as transient or provide accessors.

src/Admin.java:22: Private field 'textField' could be made final; it is only initialized in the declaration or constructor.

src/Admin.java:27: Parameter 'args' is not assigned and could be declared final

src/Admin.java:28: To be compliant to J2EE, a webapp should not use any thread.

src/Admin.java:31: Local variable 'frame' could be declared final

src/Admin.java:33: Avoid catching generic exceptions such as NullPointerException, RuntimeException, Exception in try-catch block

src/Admin.java:34: Avoid printStackTrace(); use a logger call instead.

src/Admin.java:43: It is a good practice to call super() in a constructor

src/Admin.java:59: Ensure that resources like this Connection object are closed after use

src/Admin.java:59: Local variable 'con' could be declared final

src/Admin.java:61: Local variable 'sql' could be declared final

src/Admin.java:62: Avoid variables with short names like st

src/Admin.java:62: Local variable 'st' could be declared final

src/Admin.java:63: Avoid variables with short names like rs

src/Admin.java:63: Ensure that resources like this ResultSet object are closed after use

src/Admin.java:63: Local variable 'rs' could be declared final

src/Admin.java:71: Avoid catching generic exceptions such as NullPointerException, RuntimeException, Exception in try-catch block

src/Admin.java:72: The String literal "Error" appears 4 times in this file; the first occurrence is on line 72

src/Admin.java:82: Local variable 'btnNewButton' could be declared final

src/Admin.java:85: Avoid variables with short names like e

src/Admin.java:85: Parameter 'e' is not assigned and could be declared final

src/Admin.java:87: Local variable 'proion' could be declared final

src/Admin.java:92: Potential violation of Law of Demeter (method chain calls)

src/Admin.java:97: Ensure that resources like this Connection object are closed after use

src/Admin.java:97: Local variable 'con' could be declared final

src/Admin.java:100: Local variable 'sql' could be declared final

src/Admin.java:101: Avoid variables with short names like st

src/Admin.java:101: Local variable 'st' could be declared final

src/Admin.java:101: Potential violation of Law of Demeter (object not created locally)

src/Admin.java:102: Potential violation of Law of Demeter (object not created locally)

src/Admin.java:110: Avoid catching generic exceptions such as NullPointerException, RuntimeException, Exception in try-catch block

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src/Admin.java:120: Local variable 'st' could be declared final

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src/Admin.java:121: Avoid variables with short names like rs

src/Admin.java:121: Ensure that resources like this ResultSet object are closed after use

src/Admin.java:121: Local variable 'rs' could be declared final

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src/Admin.java:153: Local variable 'label' could be declared final

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src/Enter\_RersonalData.java:26: Found non-transient, non-static member. Please mark as transient or provide accessors.

src/Enter\_RersonalData.java:26: Perhaps 'contentPane' could be replaced by a local variable.

src/Enter\_RersonalData.java:26: Private field 'contentPane' could be made final; it is only initialized in the declaration or constructor.

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src/Enter\_RersonalData.java:27: Private field 'textField' could be made final; it is only initialized in the declaration or constructor.

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src/Enter\_RersonalData.java:40: Avoid printStackTrace(); use a logger call instead.

src/Enter\_RersonalData.java:49: It is a good practice to call super() in a constructor

src/Enter\_RersonalData.java:58: Local variable 'label' could be declared final

src/Enter\_RersonalData.java:67: Local variable 'label\_1' could be declared final

src/Enter\_RersonalData.java:67: Only variables that are final should contain underscores (except for underscores in standard prefix/suffix), 'label\_1' is not final.

src/Enter\_RersonalData.java:75: Local variable 'save' could be declared final

src/Enter\_RersonalData.java:78: Avoid variables with short names like e

src/Enter\_RersonalData.java:78: Parameter 'e' is not assigned and could be declared final

src/Enter\_RersonalData.java:80: Found 'DU'-anomaly for variable 'username' (lines '80'-'125').

src/Enter\_RersonalData.java:80: Local variable 'username' could be declared final

src/Enter\_RersonalData.java:81: Found 'DU'-anomaly for variable 'password' (lines '81'-'125').

src/Enter\_RersonalData.java:81: Local variable 'password' could be declared final

src/Enter\_RersonalData.java:86: Potential violation of Law of Demeter (method chain calls)

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src/Enter\_RersonalData.java:92: Ensure that resources like this Connection object are closed after use

src/Enter\_RersonalData.java:92: Local variable 'con' could be declared final

src/Enter\_RersonalData.java:93: Local variable 'sql1' could be declared final

src/Enter\_RersonalData.java:97: Local variable 'st1' could be declared final

src/Enter\_RersonalData.java:97: Potential violation of Law of Demeter (object not created locally)

src/Enter\_RersonalData.java:98: Potential violation of Law of Demeter (object not created locally)

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src/Enter\_RersonalData.java:113: Avoid empty catch blocks

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src/Login.java:25: Found non-transient, non-static member. Please mark as transient or provide accessors.

src/Login.java:25: Private field 'textField' could be made final; it is only initialized in the declaration or constructor.

src/Login.java:26: Found non-transient, non-static member. Please mark as transient or provide accessors.

src/Login.java:26: Private field 'passField' could be made final; it is only initialized in the declaration or constructor.

src/Login.java:33: Parameter 'args' is not assigned and could be declared final

src/Login.java:34: To be compliant to J2EE, a webapp should not use any thread.

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src/Login.java:40: Avoid printStackTrace(); use a logger call instead.

src/Login.java:49: It is a good practice to call super() in a constructor

src/Login.java:63: Local variable 'btnNewButton' could be declared final

src/Login.java:65: Avoid variables with short names like e

src/Login.java:65: Parameter 'e' is not assigned and could be declared final

src/Login.java:67: Local variable 'user' could be declared final

src/Login.java:68: Found 'DU'-anomaly for variable 'strpass' (lines '68'-'145').

src/Login.java:68: Found 'DU'-anomaly for variable 'strpass' (lines '68'-'145').

src/Login.java:68: Local variable 'strpass' could be declared final

src/Login.java:73: Ensure that resources like this Connection object are closed after use

src/Login.java:73: Local variable 'con' could be declared final

src/Login.java:74: Avoid variables with short names like st

src/Login.java:74: Local variable 'st' could be declared final

src/Login.java:74: Potential violation of Law of Demeter (object not created locally)

src/Login.java:75: Avoid variables with short names like rs

src/Login.java:75: Ensure that resources like this ResultSet object are closed after use

src/Login.java:75: Local variable 'rs' could be declared final

src/Login.java:75: Potential violation of Law of Demeter (object not created locally)

src/Login.java:77: Potential violation of Law of Demeter (object not created locally)

src/Login.java:80: Local variable 'dbpass' could be declared final

src/Login.java:80: Potential violation of Law of Demeter (object not created locally)

src/Login.java:81: Potential violation of Law of Demeter (object not created locally)

src/Login.java:84: Position literals first in String comparisons

src/Login.java:84: Potential violation of Law of Demeter (object not created locally)

src/Login.java:86: Local variable 'form' could be declared final

src/Login.java:90: Local variable 'aksiologhsh' could be declared final

src/Login.java:109: Avoid empty catch blocks

src/Login.java:109: Avoid empty catch blocks

src/Login.java:118: Local variable 'lblNewLabel' could be declared final

src/Login.java:122: Local variable 'lblNewLabel\_1' could be declared final

src/Login.java:122: Only variables that are final should contain underscores (except for underscores in standard prefix/suffix), 'lblNewLabel\_1' is not final.

src/Login.java:130: Local variable 'button' could be declared final

src/Login.java:132: Avoid variables with short names like e

src/Login.java:132: Parameter 'e' is not assigned and could be declared final

src/Login.java:134: Local variable 'form1' could be declared final

src/Main.java:1: A Classname should have a minimum of five characters

src/Main.java:1: All classes and interfaces must belong to a named package

src/Main.java:1: All methods are static. Consider using Singleton instead. Alternatively, you could add a private constructor or make the class abstract to silence this warning.

src/Main.java:6: Parameter 'args' is not assigned and could be declared final

src/Main.java:8: Local variable 'LGForm' could be declared final

src/Main.java:8: Variables should start with a lowercase character, 'LGForm' starts with uppercase character.

src/Selida\_aksiologhshs.java:23: All classes and interfaces must belong to a named package

src/Selida\_aksiologhshs.java:29: Found non-transient, non-static member. Please mark as transient or provide accessors.

src/Selida\_aksiologhshs.java:29: Perhaps 'contentPane' could be replaced by a local variable.

src/Selida\_aksiologhshs.java:29: Private field 'contentPane' could be made final; it is only initialized in the declaration or constructor.

src/Selida\_aksiologhshs.java:32: Found non-transient, non-static member. Please mark as transient or provide accessors.

src/Selida\_aksiologhshs.java:32: Private field 'textField' could be made final; it is only initialized in the declaration or constructor.

src/Selida\_aksiologhshs.java:33: Found non-transient, non-static member. Please mark as transient or provide accessors.

src/Selida\_aksiologhshs.java:33: Only variables that are final should contain underscores (except for underscores in standard prefix/suffix), 'textField\_1' is not final.

src/Selida\_aksiologhshs.java:33: Perhaps 'textField\_1' could be replaced by a local variable.

src/Selida\_aksiologhshs.java:33: Private field 'textField\_1' could be made final; it is only initialized in the declaration or constructor.

src/Selida\_aksiologhshs.java:43: Parameter 'args' is not assigned and could be declared final

src/Selida\_aksiologhshs.java:44: To be compliant to J2EE, a webapp should not use any thread.

src/Selida\_aksiologhshs.java:47: Local variable 'frame' could be declared final

src/Selida\_aksiologhshs.java:49: Avoid catching generic exceptions such as NullPointerException, RuntimeException, Exception in try-catch block

src/Selida\_aksiologhshs.java:50: Avoid printStackTrace(); use a logger call instead.

src/Selida\_aksiologhshs.java:60: It is a good practice to call super() in a constructor

src/Selida\_aksiologhshs.java:93: Avoid excessively long variable names like aksiopistiaSpinner

src/Selida\_aksiologhshs.java:113: Ensure that resources like this Connection object are closed after use

src/Selida\_aksiologhshs.java:113: Local variable 'con' could be declared final

src/Selida\_aksiologhshs.java:115: Local variable 'sql' could be declared final

src/Selida\_aksiologhshs.java:116: Avoid variables with short names like st

src/Selida\_aksiologhshs.java:116: Local variable 'st' could be declared final

src/Selida\_aksiologhshs.java:117: Avoid variables with short names like rs

src/Selida\_aksiologhshs.java:117: Ensure that resources like this ResultSet object are closed after use

src/Selida\_aksiologhshs.java:117: Local variable 'rs' could be declared final

src/Selida\_aksiologhshs.java:125: Avoid catching generic exceptions such as NullPointerException, RuntimeException, Exception in try-catch block

src/Selida\_aksiologhshs.java:142: Local variable 'btnOk' could be declared final

src/Selida\_aksiologhshs.java:145: Avoid variables with short names like e

src/Selida\_aksiologhshs.java:145: Parameter 'e' is not assigned and could be declared final

src/Selida\_aksiologhshs.java:163: Local variable 'timh1' could be declared final

src/Selida\_aksiologhshs.java:167: Local variable 'energy1' could be declared final

src/Selida\_aksiologhshs.java:171: Local variable 'service1' could be declared final

src/Selida\_aksiologhshs.java:176: Local variable 'label' could be declared final

src/Selida\_aksiologhshs.java:180: Local variable 'label\_1' could be declared final

src/Selida\_aksiologhshs.java:180: Only variables that are final should contain underscores (except for underscores in standard prefix/suffix), 'label\_1' is not final.

src/Selida\_aksiologhshs.java:188: Parameter 'arg0' is not assigned and could be declared final

src/Selida\_aksiologhshs.java:194: Local variable 'price' could be declared final

src/Selida\_aksiologhshs.java:195: Local variable 'energy' could be declared final

src/Selida\_aksiologhshs.java:196: Local variable 'service' could be declared final

src/Selida\_aksiologhshs.java:197: Local variable 'aksiopistia' could be declared final

src/Selida\_aksiologhshs.java:198: Local variable 'help' could be declared final

src/Selida\_aksiologhshs.java:205: Ensure that resources like this Connection object are closed after use

src/Selida\_aksiologhshs.java:205: Local variable 'con' could be declared final

src/Selida\_aksiologhshs.java:208: Local variable 'sql' could be declared final

src/Selida\_aksiologhshs.java:208: The String literal "'" appears 6 times in this file; the first occurrence is on line 208

src/Selida\_aksiologhshs.java:208: The String literal "'where proionta='" appears 6 times in this file; the first occurrence is on line 208

src/Selida\_aksiologhshs.java:209: Local variable 'sql1' could be declared final

src/Selida\_aksiologhshs.java:210: Local variable 'sql2' could be declared final

src/Selida\_aksiologhshs.java:211: Local variable 'sql3' could be declared final

src/Selida\_aksiologhshs.java:212: Local variable 'sql4' could be declared final

src/Selida\_aksiologhshs.java:214: Avoid excessively long variable names like Synoliki\_vathmologia

src/Selida\_aksiologhshs.java:214: Local variable 'Synoliki\_vathmologia' could be declared final

src/Selida\_aksiologhshs.java:214: Only variables that are final should contain underscores (except for underscores in standard prefix/suffix), 'Synoliki\_vathmologia' is not final.

src/Selida\_aksiologhshs.java:214: Useless parentheses.

src/Selida\_aksiologhshs.java:214: Useless parentheses.

src/Selida\_aksiologhshs.java:214: Variables should start with a lowercase character, 'Synoliki\_vathmologia' starts with uppercase character.

src/Selida\_aksiologhshs.java:215: Local variable 'sql5' could be declared final

src/Selida\_aksiologhshs.java:220: Avoid variables with short names like st

src/Selida\_aksiologhshs.java:220: Local variable 'st' could be declared final

src/Selida\_aksiologhshs.java:220: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:221: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:223: Local variable 'st1' could be declared final

src/Selida\_aksiologhshs.java:223: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:224: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:226: Local variable 'st2' could be declared final

src/Selida\_aksiologhshs.java:226: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:227: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:229: Local variable 'st3' could be declared final

src/Selida\_aksiologhshs.java:229: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:230: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:232: Local variable 'st4' could be declared final

src/Selida\_aksiologhshs.java:232: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:233: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:235: Local variable 'st5' could be declared final

src/Selida\_aksiologhshs.java:235: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:236: Potential violation of Law of Demeter (object not created locally)

src/Selida\_aksiologhshs.java:242: Avoid catching generic exceptions such as NullPointerException, RuntimeException, Exception in try-catch block

src/Selida\_aksiologhshs.java:262: Local variable 'label\_2' could be declared final

src/Selida\_aksiologhshs.java:262: Only variables that are final should contain underscores (except for underscores in standard prefix/suffix), 'label\_2' is not final.

src/Selida\_aksiologhshs.java:266: Local variable 'label\_3' could be declared final

src/Selida\_aksiologhshs.java:266: Only variables that are final should contain underscores (except for underscores in standard prefix/suffix), 'label\_3' is not final.

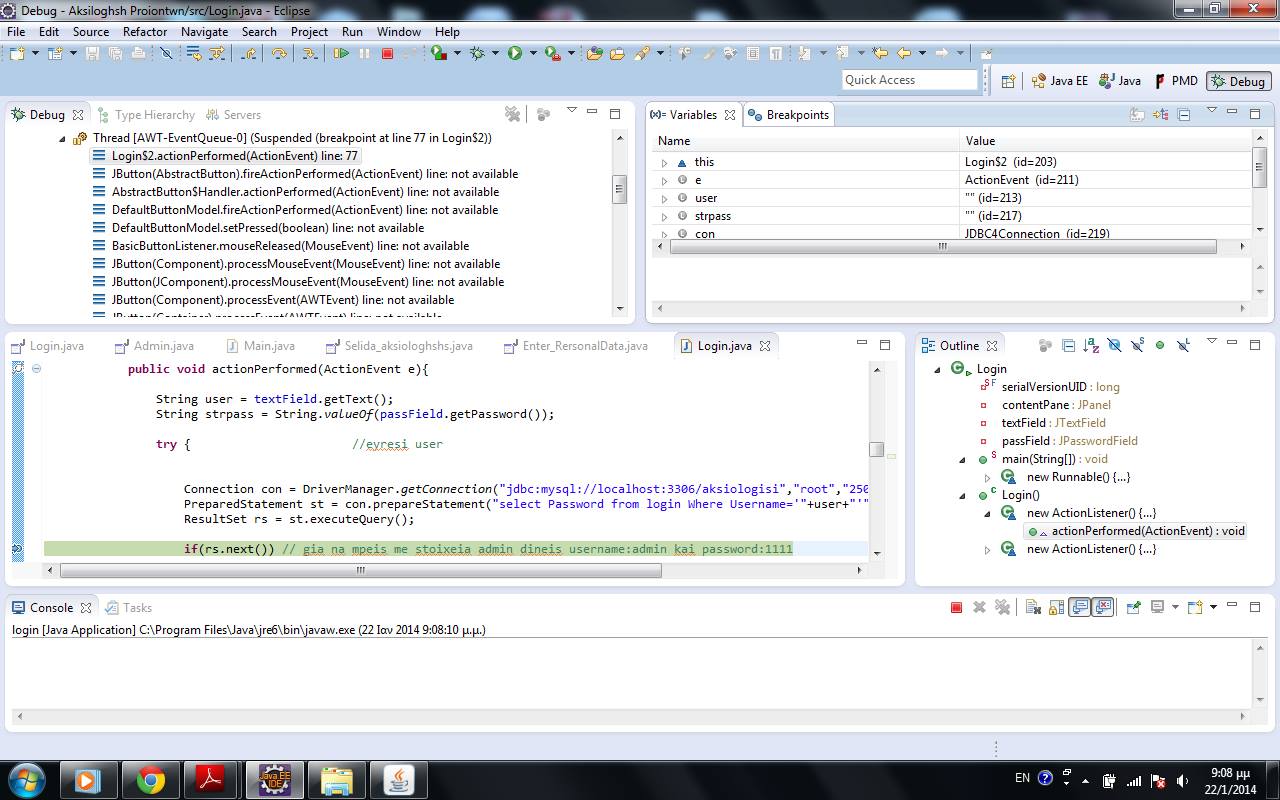
src/Selida\_aksiologhshs.java:272: Local variable 'lblOnline' could be declared final

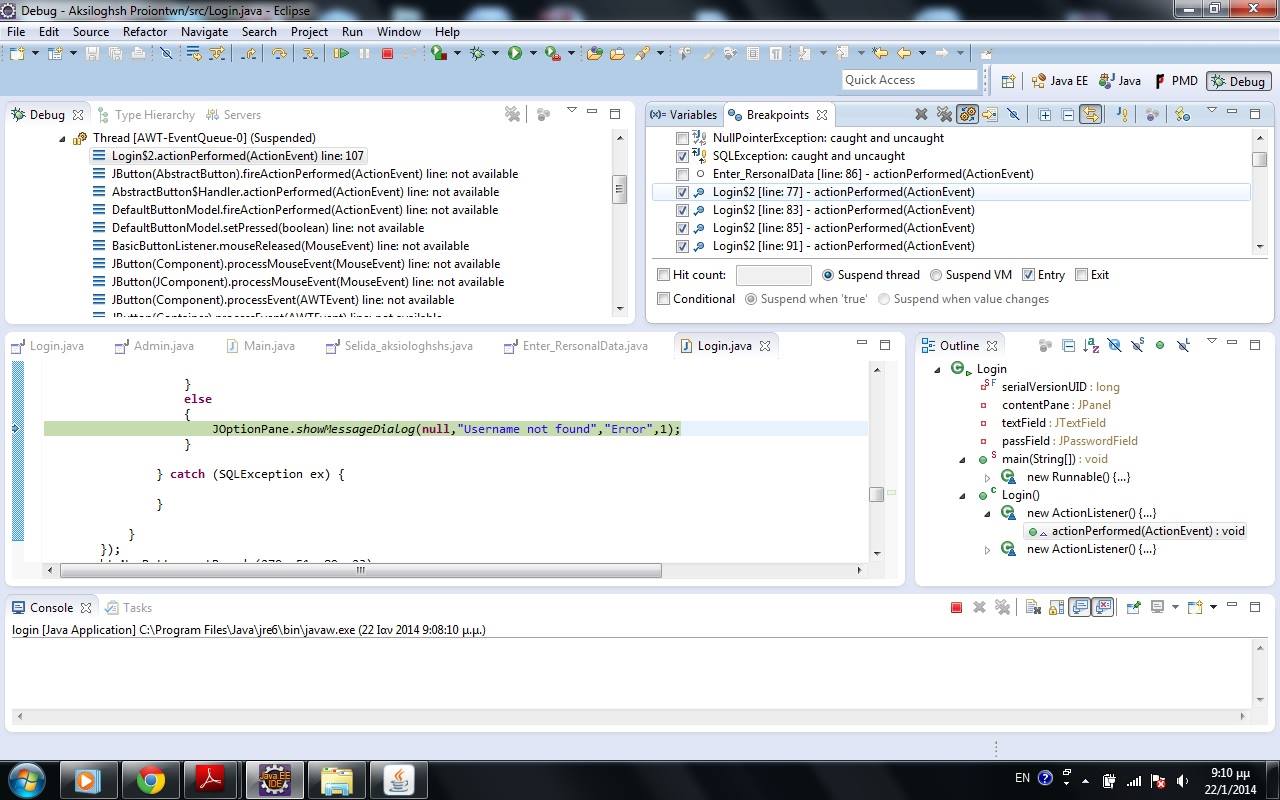
src/Selida\_aksiologhshs.java:276: Local variable 'label\_4' could be declared final

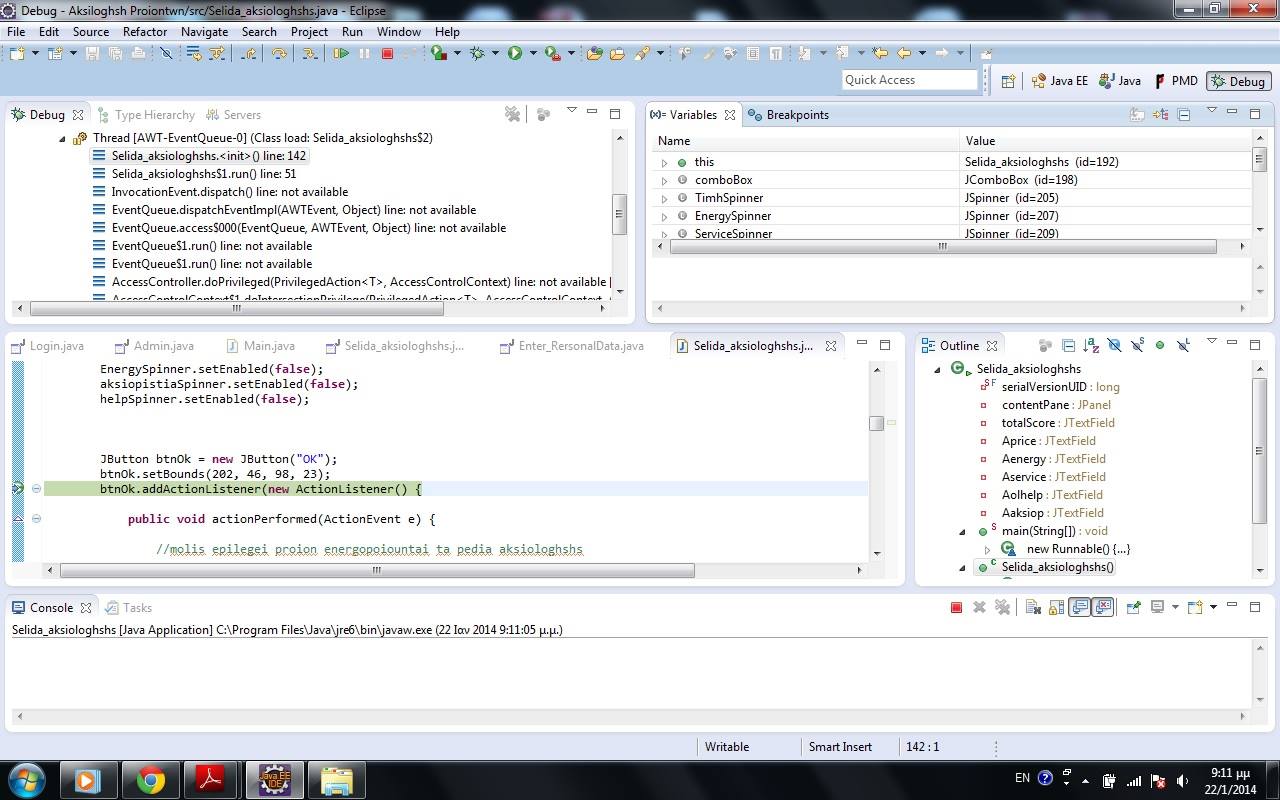
src/Selida\_aksiologhshs.java:276: Only variables that are final should contain underscores (except for underscores in standard prefix/suffix), 'label\_4' is not final.

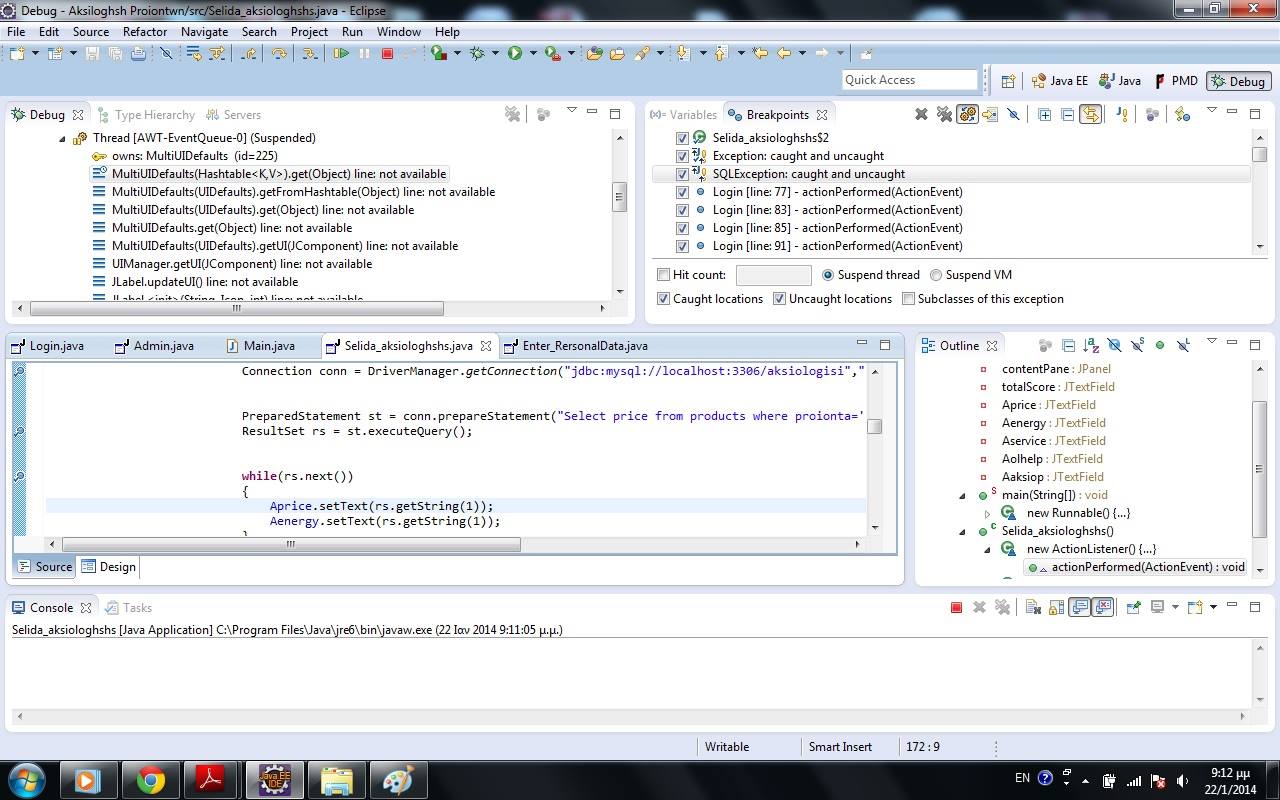
# Debugging / Testing

## Debugging

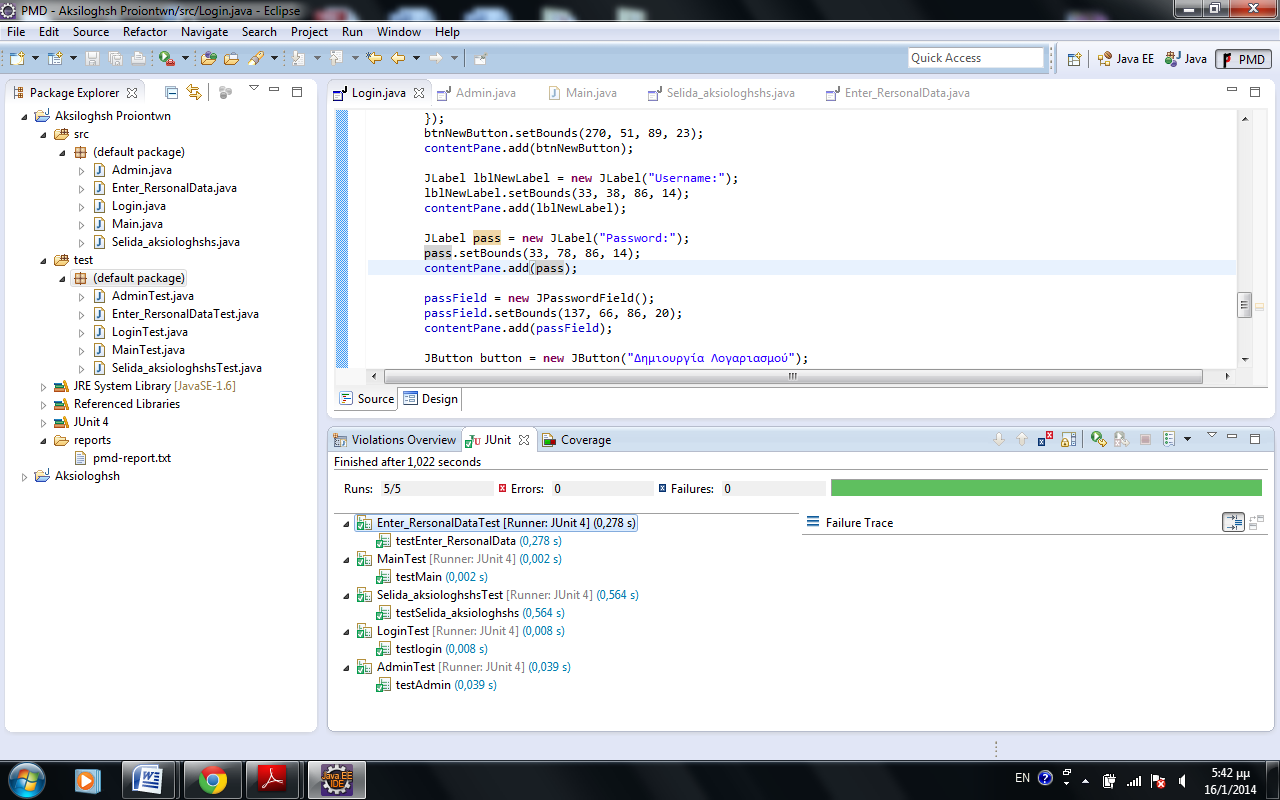




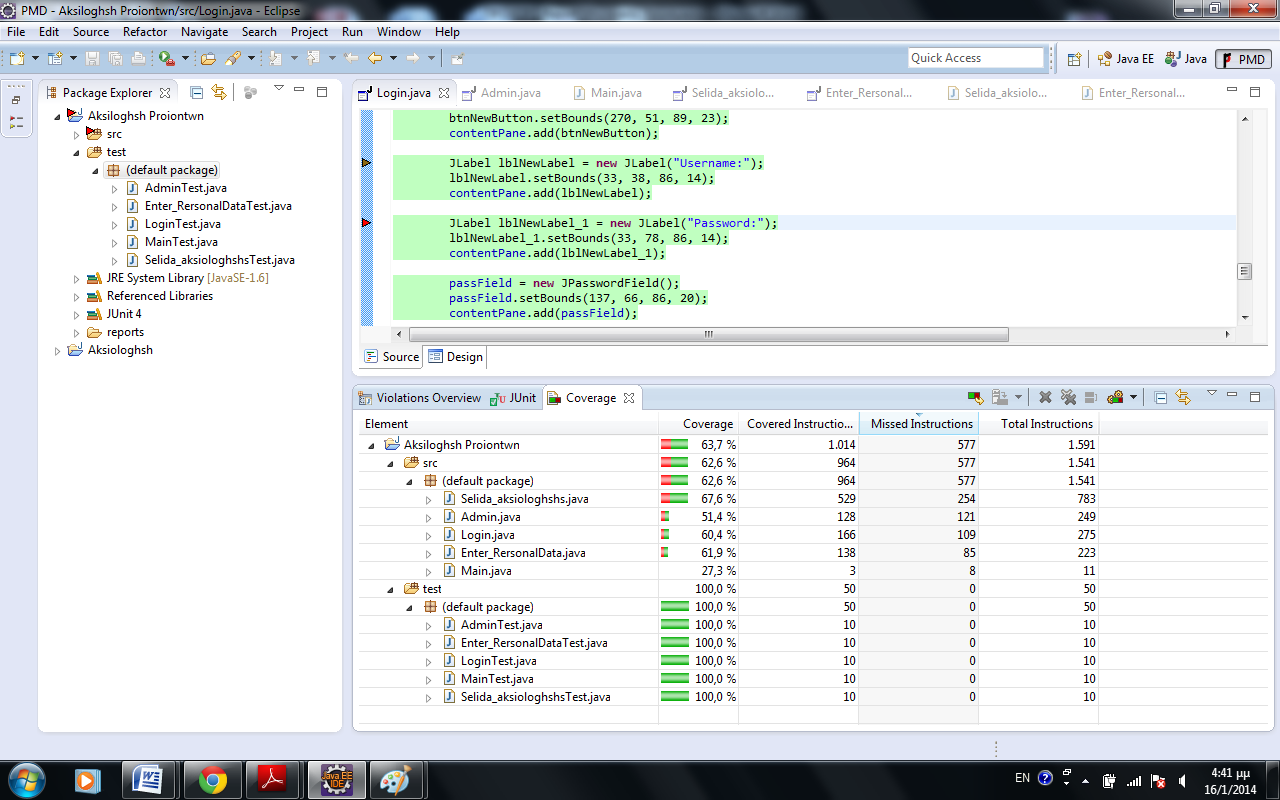




## Unit Testing



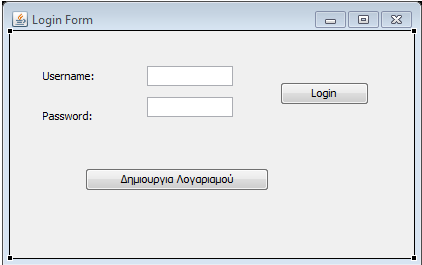
## Coverage



# Πηγαίος κώδικας / GUI

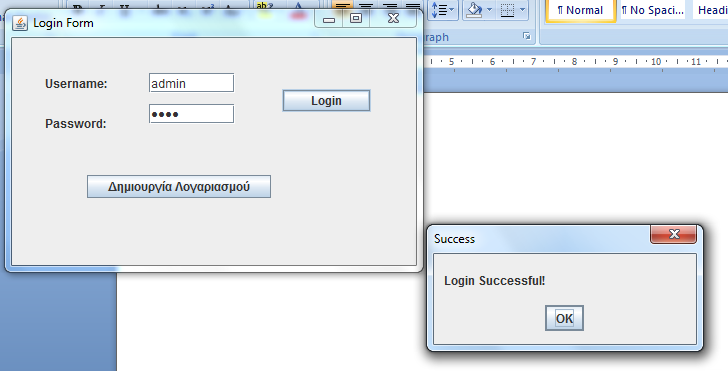
## Κλάση 1

**Login form**

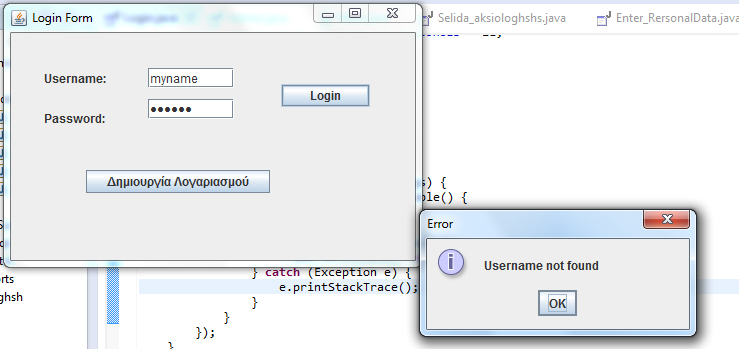


Εισαγωγή στοιχείων διαχειριστή και μήνυμα αποδεκτής σύνδεσης.

Username: admin  
Password: 1111



Εμφάνιση σχετικού μηνύματος αν τα δεδομένα εισαγωγής δεν είναι σωστά.



**import** java.awt.EventQueue;

**import** javax.swing.\*;

**import** javax.swing.border.EmptyBorder;

**import** java.sql.PreparedStatement;

**import** java.awt.event.ActionListener;

**import** java.awt.event.ActionEvent;

**import** java.sql.Connection;

**import** java.sql.DriverManager;

**import** java.sql.ResultSet;

**import** java.sql.SQLException;

**public** **class** Login **extends** JFrame {

/\*\*

\*

\*/

**private** **static** **final** **long** *serialVersionUID* = 1L;

**private** JPanel contentPane;

**private** JTextField textField;

**private** JPasswordField passField;

/\*\*

\* Launch the application.

\*/

**public** **static** **void** main(String[] args) {

EventQueue.*invokeLater*(**new** Runnable() {

**public** **void** run() {

**try** {

Login frame = **new** Login();

frame.setVisible(**true**);

} **catch** (Exception e) {

e.printStackTrace();

}

}

});

}

/\*\*

\* Create the frame.

\*/

**public** Login() {

setTitle("Login Form");

setDefaultCloseOperation(JFrame.*EXIT\_ON\_CLOSE*);

setBounds(100, 100, 420, 265);

contentPane = **new** JPanel();

contentPane.setBorder(**new** EmptyBorder(5, 5, 5, 5));

setContentPane(contentPane);

contentPane.setLayout(**null**);

textField = **new** JTextField();

textField.setBounds(137, 35, 86, 20);

contentPane.add(textField);

textField.setColumns(10);

JButton btnNewButton = **new** JButton("Login");

btnNewButton.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e){

String user = textField.getText();

String strpass = String.*valueOf*(passField.getPassword());

**try** { //eyresi user

Connection con = DriverManager.*getConnection*("jdbc:mysql://localhost:3306/aksiologisi","root","25021991"); //Syndesh me vash dedomenwn

PreparedStatement st = con.prepareStatement("select Password from login Where Username='"+user+"'");

ResultSet rs = st.executeQuery();

**if**(rs.next()) // gia na mpeis me stoixeia admin dineis username:admin kai password:1111

{

String dbpass = rs.getString(1);

**if**(dbpass.equals(strpass)){ //elegxos password

JOptionPane.*showMessageDialog*(**null**,"Login Successful! ","Success",JOptionPane.*PLAIN\_MESSAGE*);

**if**(user.equals("admin")){ //an admin tote adminform

Admin form = **new** Admin();

form.setVisible(**true**);

}

**else**{ // alliws phgaine sth selIda aksiologhshs

Selida\_aksiologhshs aksiologhsh = **new** Selida\_aksiologhshs();

aksiologhsh.setVisible(**true**);

}

}

**else**

{

JOptionPane.*showMessageDialog*(**null**,"Login Unsuccessful!","Error",1);

}

}

**else**

{

JOptionPane.*showMessageDialog*(**null**,"Username not found","Error",1);

}

} **catch** (SQLException ex) {

}

}

});

btnNewButton.setBounds(270, 51, 89, 23);

contentPane.add(btnNewButton);

JLabel lblNewLabel = **new** JLabel("Username:");

lblNewLabel.setBounds(33, 38, 86, 14);

contentPane.add(lblNewLabel);

JLabel pass = **new** JLabel("Password:");

pass.setBounds(33, 78, 86, 14);

contentPane.add(pass);

passField = **new** JPasswordField();

passField.setBounds(137, 66, 86, 20);

contentPane.add(passField);

JButton button = **new** JButton("Δημιουργία Λογαριασμού");

button.addActionListener(**new** ActionListener(){

**public** **void** actionPerformed(ActionEvent e){

Enter\_RersonalData form1 = **new** Enter\_RersonalData();

form1.setVisible(**true**);

}});

button.setBounds(75, 137, 184, 23);

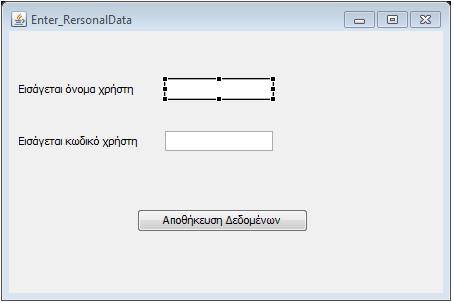
contentPane.add(button);

}

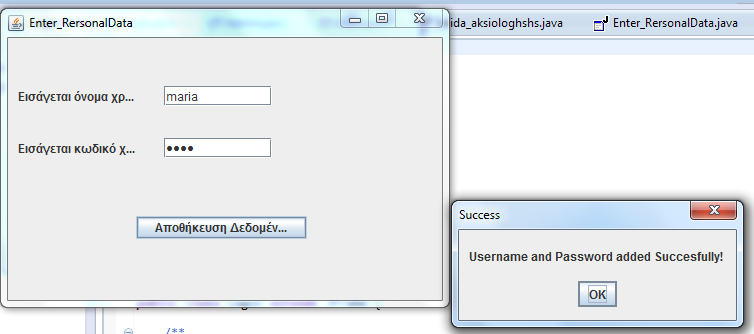
}

## Κλάση 2

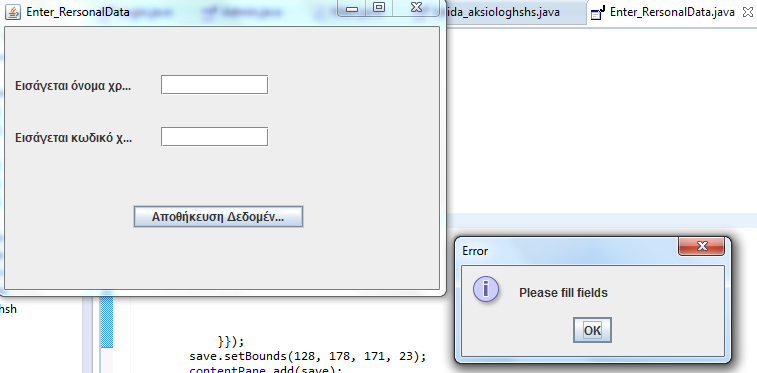
**Σελίδα συμπλήρωσης στοιχείων για να γίνεις χρήστης**



Δημιουργία νέου χρήστη και μήνυμα ότι τα στοιχεία καταχωρήθηκαν επιτυχώς.



Έλεγχος αν τα πεδία είναι κενά και εμφάνιση σχετικού μηνύματος.



**import** java.awt.EventQueue;

**import** java.awt.event.ActionEvent;

**import** java.awt.event.ActionListener;

**import** java.sql.Connection;

**import** java.sql.DriverManager;

**import** java.sql.PreparedStatement;

**import** javax.swing.JFrame;

**import** javax.swing.JPanel;

**import** javax.swing.border.EmptyBorder;

**import** javax.swing.JLabel;

**import** javax.swing.JOptionPane;

**import** javax.swing.JTextField;

**import** javax.swing.JPasswordField;

**import** javax.swing.JButton;

**public** **class** Enter\_RersonalData **extends** JFrame {

/\*\*

\*

\*/

**private** **static** **final** **long** *serialVersionUID* = 1L;

**private** JPanel contentPane;

**private** JTextField textField;

**private** JPasswordField passwordField;

/\*\*

\* Launch the application.

\*/

**public** **static** **void** main(String[] args) {

EventQueue.*invokeLater*(**new** Runnable() {

**public** **void** run() {

**try** {

Enter\_RersonalData frame = **new** Enter\_RersonalData();

frame.setVisible(**true**);

} **catch** (Exception e) {

e.printStackTrace();

}

}

});

}

/\*\*

\* Create the frame.

\*/

**public** Enter\_RersonalData() {

setTitle("Enter\_RersonalData");

setDefaultCloseOperation(JFrame.*EXIT\_ON\_CLOSE*);

setBounds(100, 100, 450, 300);

contentPane = **new** JPanel();

contentPane.setBorder(**new** EmptyBorder(5, 5, 5, 5));

setContentPane(contentPane);

contentPane.setLayout(**null**);

JLabel label = **new** JLabel("Εισάγεται όνομα χρήστη");

label.setBounds(10, 51, 122, 14);

contentPane.add(label);

textField = **new** JTextField();

textField.setBounds(156, 48, 108, 20);

contentPane.add(textField);

textField.setColumns(10);

JLabel insertCode = **new** JLabel("Εισάγεται κωδικό χρήστη");

insertCode.setBounds(10, 103, 122, 14);

contentPane.add(insertCode);

passwordField = **new** JPasswordField();

passwordField.setBounds(156, 100, 108, 20);

contentPane.add(passwordField);

JButton save = **new** JButton("Αποθήκευση Δεδομένων");

save.addActionListener(**new** ActionListener(){

**public** **void** actionPerformed(ActionEvent e){ //eisagwgh stoixeiwn gia eggrafh xrhsth

String username = textField.getText();

String password = String.*valueOf*(passwordField.getPassword());

**try**{

**if**(textField.getText().equals("")||passwordField.getPassword().equals("") ){ //an yparxei keno pedio error

JOptionPane.*showMessageDialog*(**null**,"Please fill fields","Error",1);

}

**else**{

Connection con = DriverManager.*getConnection*("jdbc:mysql://localhost:3306/aksiologisi","root","25021991"); //Syndesh me vash dedomenwn

String sql1="Insert into login(username,password) values('"+(username)+"','"+(password)+"')";

PreparedStatement st1 = con.prepareStatement(sql1);

st1.execute();

JOptionPane.*showMessageDialog*(**null**,"Username and Password added Succesfully! ","Success",JOptionPane.*PLAIN\_MESSAGE*);

}

} **catch** (Exception e3) {

}

}});

save.setBounds(128, 178, 171, 23);

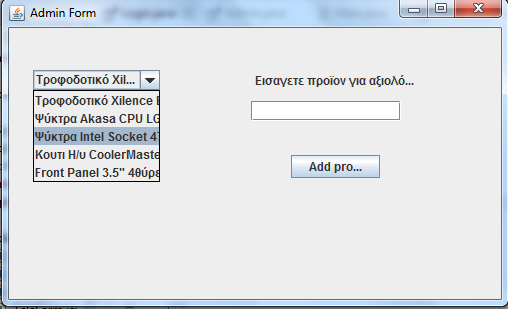
contentPane.add(save);

}

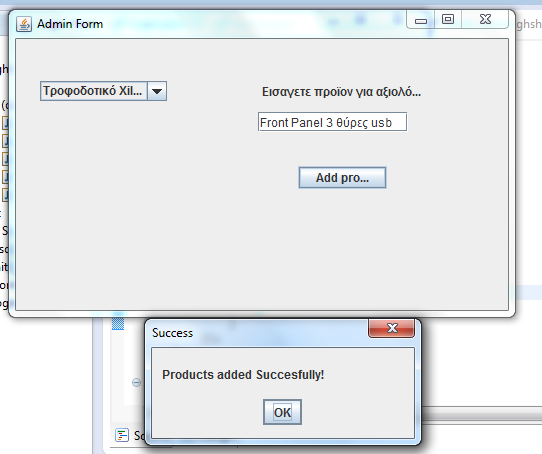
}

## Κλάση 3

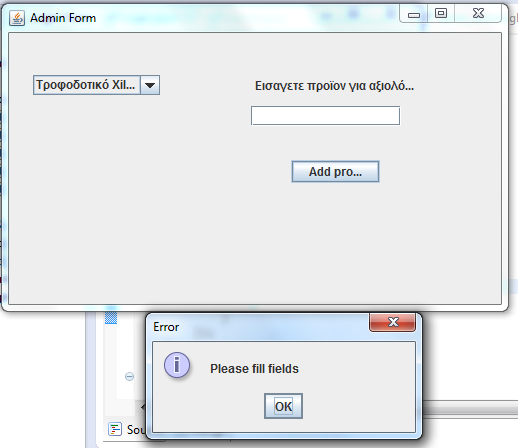
**Σελίδα διαχειριστή**



Εισαγωγή προϊόντος από το διαχειριστή και εμφάνιση σχετικού μηνύματος.



Εμφάνιση σχετικού μηνύματος αν το πεδίο είναι κενό.



**import** java.awt.EventQueue;

**import** javax.swing.JFrame;

**import** javax.swing.JOptionPane;

**import** javax.swing.JButton;

**import** javax.swing.JComboBox;

**import** javax.swing.JTextField;

**import** javax.swing.JLabel;

**import** java.awt.event.ActionListener;

**import** java.awt.event.ActionEvent;

**import** java.sql.Connection;

**import** java.sql.DriverManager;

**import** java.sql.PreparedStatement;

**import** java.sql.ResultSet;

**public** **class** Admin **extends** JFrame {

/\*\*

\*

\*/

**private** **static** **final** **long** *serialVersionUID* = 1L;

**private** JTextField textField;

/\*\*

\* Launch the application.

\*/

**public** **static** **void** main(String[] args) {

EventQueue.*invokeLater*(**new** Runnable() {

**public** **void** run() {

**try** {

Admin frame = **new** Admin();

frame.setVisible(**true**);

} **catch** (Exception e) {

e.printStackTrace();

}

}

});

}

/\*\*

\* Create the frame.

\*/

**public** Admin() {

setTitle("Admin Form");

setDefaultCloseOperation(JFrame.*EXIT\_ON\_CLOSE*);

setBounds(100, 100, 508, 309);

getContentPane().setLayout(**null**);

**final** JComboBox comboBox = **new** JComboBox();

comboBox.setBounds(24, 42, 127, 20);

getContentPane().add(comboBox);

//fortwnei sto comboBox to perioxomeno ths bashs

**try**{

Connection con = DriverManager.*getConnection*("jdbc:mysql://localhost:3306/aksiologisi","root","25021991"); //Syndesh me vash dedomenwn

String sql="select \*from products";

PreparedStatement st = con.prepareStatement(sql);

ResultSet rs = st.executeQuery();

**while**(rs.next()) //oso yparxoyn dedomena

{

comboBox.addItem(rs.getString(1)); //prosthese ta sto comboBox

}

}**catch**(Exception e3){

JOptionPane.*showMessageDialog*(**null**,"Connection Error","Error",1);

}

JButton btnNewButton = **new** JButton("Add product");

btnNewButton.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

String proion = textField.getText();

**try**{

**if**(textField.getText().equals("") ){ //an yparxei keno pedio error

JOptionPane.*showMessageDialog*(**null**,"Please fill fields","Error",1);

}

**else**{ // prosthiki proiontwn sth vash apo ton admin

Connection con = DriverManager.*getConnection*("jdbc:mysql://localhost:3306/aksiologisi","root","25021991"); //Syndesh me vash dedomenwn

String sql="Insert into products(proionta) values('"+(proion)+"')";

PreparedStatement st = con.prepareStatement(sql);

st.execute();

JOptionPane.*showMessageDialog*(**null**,"Products added Succesfully! ","Success",JOptionPane.*PLAIN\_MESSAGE*);

textField.setText(**null**);

}

}**catch**(Exception e3){

JOptionPane.*showMessageDialog*(**null**,"Connection Error","Error",1);

}

**try** {

Connection con = DriverManager.*getConnection*("jdbc:mysql://localhost:3306/aksiologisi","root","25021991"); //Syndesh me vash dedomenwn

PreparedStatement st = con.prepareStatement("select proionta from products where proionta='"+(proion)+"'");

ResultSet rs = st.executeQuery();

**while**(rs.next()) //oso yparxoyn dedomena

{

comboBox.addItem(rs.getString(1)); //prosthese ta sto comboBox

}

}**catch**(Exception e3){

JOptionPane.*showMessageDialog*(**null**,"Connection Error","Error",1);

}

}

});

btnNewButton.setBounds(282, 127, 89, 23);

getContentPane().add(btnNewButton);

textField = **new** JTextField();

textField.setBounds(242, 73, 150, 20);

getContentPane().add(textField);

textField.setColumns(10);

JLabel label = **new** JLabel("Εισαγετε προϊον για αξιολόγηση");

label.setBounds(246, 45, 162, 14);

getContentPane().add(label);

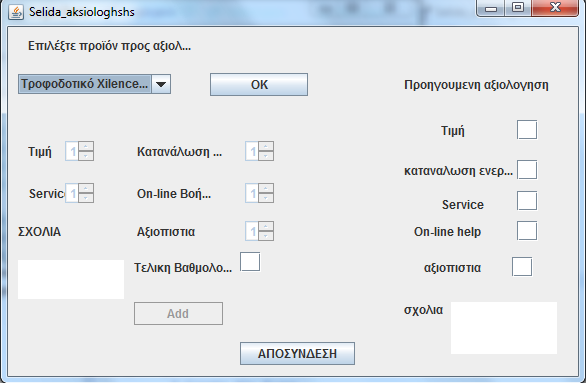
}

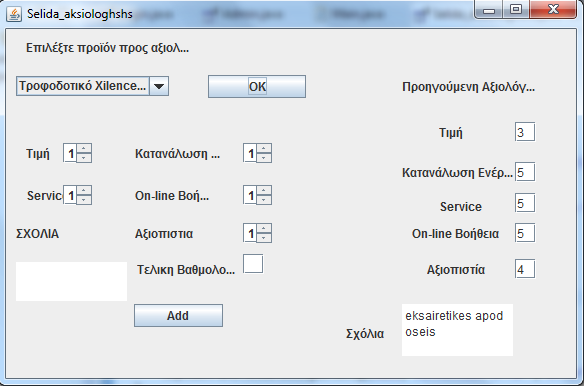
}

## Κλάση 4

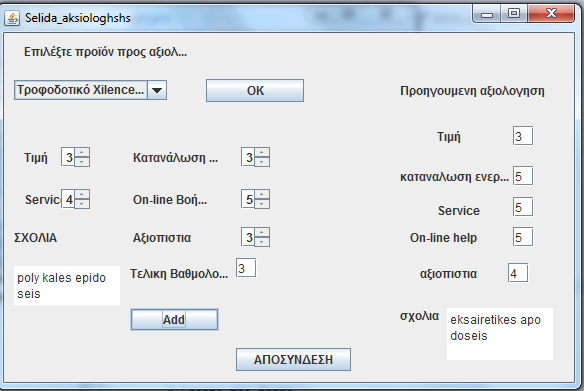
**Σελίδα αξιολόγησης**

Πριν την επιλογή προϊόντος τα πεδία αξιολόγησης είναι ανενεργά.



Μετά την επιλογή προϊόντος. Στην δεξιά πλευρά εμφανίζεται παρελθοντική αξιολόγηση και επιτρέπεται (ενεργοποιούνται τα πεδία) να γίνει αξιολόγηση από το χρήστη. 

Εισαγωγή αξιολόγησης από το χρήστη και υπολογισμός του μέσου όρου της βαθμολογίας μας.



**import** java.awt.EventQueue;

**import** javax.swing.JFrame;

**import** javax.swing.JPanel;

**import** javax.swing.border.EmptyBorder;

**import** javax.swing.JButton;

**import** javax.swing.JComboBox;

**import** javax.swing.JEditorPane;

**import** javax.swing.JLabel;

**import** javax.swing.JOptionPane;

**import** javax.swing.JTextField;

**import** java.awt.event.ActionListener;

**import** java.awt.event.ActionEvent;

**import** java.sql.Connection;

**import** java.sql.DriverManager;

**import** java.sql.ResultSet;

**import** javax.swing.JSpinner;

**import** java.sql.PreparedStatement;

**import** javax.swing.SpinnerNumberModel;

**public** **class** Selida\_aksiologhshs **extends** JFrame {

/\*\*

\*

\*/

**private** **static** **final** **long** *serialVersionUID* = 1L;

**private** JPanel contentPane;

**private** JTextField totalScore;

**private** JTextField Aprice;

**private** JTextField Aenergy;

**private** JTextField Aservice;

**private** JTextField Aolhelp;

**private** JTextField Aaksiop;

/\*\*

\* Launch the application.

\*/

**public** **static** **void** main(String[] args) {

EventQueue.*invokeLater*(**new** Runnable() {

**public** **void** run() {

**try** {

Selida\_aksiologhshs frame = **new** Selida\_aksiologhshs();

frame.setVisible(**true**);

} **catch** (Exception e) {

e.printStackTrace();

}

}

});

}

/\*\*

\* Create the frame.

\*/

**public** Selida\_aksiologhshs() {

setTitle("Selida\_aksiologhshs");

setDefaultCloseOperation(JFrame.*EXIT\_ON\_CLOSE*);

setBounds(100, 100, 586, 387);

contentPane = **new** JPanel();

contentPane.setBorder(**new** EmptyBorder(5, 5, 5, 5));

setContentPane(contentPane);

**final** JComboBox comboBox = **new** JComboBox();

comboBox.setBounds(10, 47, 153, 20);

**final** JSpinner TimhSpinner= **new** JSpinner();

TimhSpinner.setBounds(57, 114, 29, 20);

TimhSpinner.setModel(**new** SpinnerNumberModel(1, 1, 5, 1));

**final** JSpinner EnergySpinner = **new** JSpinner();

EnergySpinner.setBounds(237, 114, 29, 20);

EnergySpinner.setModel(**new** SpinnerNumberModel(1, 1, 5, 1));

**final** JSpinner ServiceSpinner = **new** JSpinner();

ServiceSpinner.setBounds(57, 156, 29, 20);

ServiceSpinner.setModel(**new** SpinnerNumberModel(1, 1, 5, 1));

**final** JSpinner aksiopistiaSpinner = **new** JSpinner();

aksiopistiaSpinner.setBounds(237, 194, 29, 20);

aksiopistiaSpinner.setModel(**new** SpinnerNumberModel(1, 1, 5, 1));

**final** JSpinner helpSpinner = **new** JSpinner();

helpSpinner.setBounds(237, 156, 29, 20);

helpSpinner.setModel(**new** SpinnerNumberModel(1, 1, 5, 1));

**final** JEditorPane editorPane = **new** JEditorPane();

editorPane.setBounds(10, 233, 106, 39);

**final** JButton btnAddButton = **new** JButton("Add");

btnAddButton.setBounds(126, 275, 89, 23);

**final** JEditorPane editorPane\_1 = **new** JEditorPane();

editorPane\_1.setBounds(443, 275, 106, 52);

//epilogh proiontwn pros aksiologhsh

**try** {

Connection con = DriverManager.*getConnection*("jdbc:mysql://localhost:3306/aksiologisi","root","25021991"); //Syndesh me vash dedomenwn

String sql="select \*from products";

PreparedStatement st = con.prepareStatement(sql);

ResultSet rs = st.executeQuery();

**while**(rs.next()) //oso yparxoyn dedomena

{

comboBox.addItem(rs.getString(1)); //prosthese ta sto comboBox

}

}**catch**(Exception e3){

JOptionPane.*showMessageDialog*(**null**,"Connection Error","Error",1);

}

// mexri na epilegei proion h aksiologhsh einai anenergh

editorPane.setEnabled(**false**);

TimhSpinner.setEnabled(**false**);

ServiceSpinner.setEnabled(**false**);

EnergySpinner.setEnabled(**false**);

aksiopistiaSpinner.setEnabled(**false**);

helpSpinner.setEnabled(**false**);

JButton btnOk = **new** JButton("OK");

btnOk.setBounds(202, 46, 98, 23);

btnOk.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

//molis epilegei proion energopoiountai ta pedia aksiologhshs

TimhSpinner.setEnabled(**true**);

ServiceSpinner.setEnabled(**true**);

EnergySpinner.setEnabled(**true**);

editorPane.setEnabled(**true**);

aksiopistiaSpinner.setEnabled(**true**);

helpSpinner.setEnabled(**true**);

btnAddButton.setEnabled(**true**);

// emfanish prohgoumenwn aksiologhsewn

//syndesh me th vash kai emfanish apotelesmatwn sta antistoixa textfild

**try**{

Connection conn = DriverManager.*getConnection*("jdbc:mysql://localhost:3306/aksiologisi","root","25021991"); //Syndesh me vash dedomenwn

PreparedStatement st = conn.prepareStatement("Select price from products where proionta='"+comboBox.getSelectedItem()+"'");

ResultSet rs = st.executeQuery();

**while**(rs.next())

{

Aprice.setText(rs.getString(1));

}

}**catch**(Exception e3){

JOptionPane.*showMessageDialog*(**null**,"Connection Error","Error",1);

}

**try**{

Connection conn = DriverManager.*getConnection*("jdbc:mysql://localhost:3306/aksiologisi","root","25021991"); //Syndesh me vash dedomenwn

PreparedStatement st = conn.prepareStatement("Select energy from products where proionta='"+comboBox.getSelectedItem()+"'"); //tis ores apo tin tainia poy exei epilegei sto combobox

ResultSet rs= st.executeQuery();

**while**(rs.next())

{

Aenergy.setText(rs.getString(1));

}

}**catch**(Exception e3){

JOptionPane.*showMessageDialog*(**null**,"Connection Error","Error",1);

}

**try**{

Connection conn = DriverManager.*getConnection*("jdbc:mysql://localhost:3306/aksiologisi","root","25021991"); //Syndesh me vash dedomenwn

PreparedStatement st = conn.prepareStatement("Select service from products where proionta='"+comboBox.getSelectedItem()+"'"); //tis ores apo tin tainia poy exei epilegei sto combobox

ResultSet rs = st.executeQuery();

**while**(rs.next())

{

Aservice.setText(rs.getString(1));

}

}**catch**(Exception e3){

JOptionPane.*showMessageDialog*(**null**,"Connection Error","Error",1);

}

**try**{

Connection conn = DriverManager.*getConnection*("jdbc:mysql://localhost:3306/aksiologisi","root","25021991"); //Syndesh me vash dedomenwn

PreparedStatement st = conn.prepareStatement("Select aksiopistia from products where proionta='"+comboBox.getSelectedItem()+"'"); //tis ores apo tin tainia poy exei epilegei sto combobox

ResultSet rs = st.executeQuery();

**while**(rs.next()) //oso yparxoyn dedomena

{

Aaksiop.setText(rs.getString(1));

}

}**catch**(Exception e3){

JOptionPane.*showMessageDialog*(**null**,"Connection Error","Error",1);

}

**try**{

Connection conn = DriverManager.*getConnection*("jdbc:mysql://localhost:3306/aksiologisi","root","25021991"); //Syndesh me vash dedomenwn

PreparedStatement st = conn.prepareStatement("Select help from products where proionta='"+comboBox.getSelectedItem()+"'"); //tis ores apo tin tainia poy exei epilegei sto combobox

ResultSet rs = st.executeQuery();

**while**(rs.next()) //oso yparxoyn dedomena

{

Aolhelp.setText(rs.getString(1));

}

}**catch**(Exception e3){

JOptionPane.*showMessageDialog*(**null**,"Connection Error","Error",1);

}

**try**{

Connection conn = DriverManager.*getConnection*("jdbc:mysql://localhost:3306/aksiologisi","root","25021991"); //Syndesh me vash dedomenwn

PreparedStatement st = conn.prepareStatement("Select sxolia from products where proionta='"+comboBox.getSelectedItem()+"'"); //tis ores apo tin tainia poy exei epilegei sto combobox

ResultSet rs = st.executeQuery();

**while**(rs.next()) //oso yparxoyn dedomena

{

editorPane\_1.setText(rs.getString(1));

}

}**catch**(Exception e3){

JOptionPane.*showMessageDialog*(**null**,"Connection Error","Error",1);

}

}

});

JLabel timh1 = **new** JLabel("Τιμή");

timh1.setBounds(20, 117, 46, 14);

JLabel energy1 = **new** JLabel("Κατανάλωση Ενέργειας");

energy1.setBounds(129, 116, 88, 17);

JLabel service1 = **new** JLabel("Service");

service1.setBounds(20, 159, 46, 14);

JLabel label = **new** JLabel("ΣΧΟΛΙΑ");

label.setBounds(10, 197, 46, 14);

JLabel check = **new** JLabel("Επιλέξτε προϊόν προς αξιολόγηση");

check.setBounds(20, 11, 167, 14);

///////////////////////////////////////////

btnAddButton.setEnabled(**false**);

btnAddButton.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent arg0) { //gia prosthiki vathmologiwn sth vash kai ypologismos telikis vathmologias

**int** price = (Integer) TimhSpinner.getValue();

**int** energy= (Integer) EnergySpinner.getValue();

**int** service=(Integer) ServiceSpinner.getValue();

**int** aksiopistia=(Integer)aksiopistiaSpinner.getValue();

**int** help=(Integer)helpSpinner.getValue();

String sxolia=editorPane.getText();

**try**{

Connection con = DriverManager.*getConnection*("jdbc:mysql://localhost:3306/aksiologisi","root","25021991"); //Syndesh me vash dedomenwn

//perasma parametrwn (vathmologiwn sth vash)

String sql="update products set price='"+price+"'where proionta='"+comboBox.getSelectedItem()+"'";

String sql1="update products set energy='"+energy+"'where proionta='"+comboBox.getSelectedItem()+"'";

String sql2="update products set service='"+service+"'where proionta='"+comboBox.getSelectedItem()+"'";

String sql3="update products set aksiopistia='"+aksiopistia+"'where proionta='"+comboBox.getSelectedItem()+"'";

String sql4="update products set help='"+help+"'where proionta='"+comboBox.getSelectedItem()+"'";

String sql6="update products set sxolia='"+sxolia+"'where proionta='"+comboBox.getSelectedItem()+"'";

//ypologismos mesou oroy ths dothisas vathmologias

**int** synVath=((price+energy+service+aksiopistia+help)/5);

String sql5="update products set vathmologia='"+ synVath+"'where proionta='"+comboBox.getSelectedItem()+"'";

PreparedStatement st = con.prepareStatement(sql);

st.execute();

PreparedStatement st1 = con.prepareStatement(sql1);

st1.execute();

PreparedStatement st2 = con.prepareStatement(sql2);

st2.execute();

PreparedStatement st3 = con.prepareStatement(sql3);

st3.execute();

PreparedStatement st4 = con.prepareStatement(sql4);

st4.execute();

PreparedStatement st6 = con.prepareStatement(sql6);

st6.execute();

PreparedStatement st5 = con.prepareStatement(sql5);

st5.execute();

totalScore.setText(Integer.*toString*(synVath)); //emfanisi telikis vathmologias

}**catch**(Exception e3){

JOptionPane.*showMessageDialog*(**null**,"Connection Error","Error",1);

}

}

});

totalScore = **new** JTextField();

totalScore.setBounds(232, 225, 21, 20);

totalScore.setColumns(10);

JLabel result = **new** JLabel("Τελικη Βαθμολογια");

result.setBounds(126, 233, 103, 14);

JLabel reliability = **new** JLabel("Αξιοπιστια");

reliability.setBounds(129, 197, 75, 14);

JLabel lblOnline = **new** JLabel("On-line Βοήθεια");

lblOnline.setBounds(129, 159, 75, 14);

JLabel label\_1 = **new** JLabel("Προηγουμενη αξιολογηση");

label\_1.setBounds(396, 50, 153, 14);

Aprice = **new** JTextField();

Aprice.setBounds(509, 93, 21, 20);

Aprice.setColumns(10);

Aenergy = **new** JTextField();

Aenergy.setBounds(509, 133, 21, 20);

Aenergy.setColumns(10);

Aservice = **new** JTextField();

Aservice.setBounds(509, 164, 21, 20);

Aservice.setColumns(10);

Aolhelp = **new** JTextField();

Aolhelp.setBounds(509, 194, 21, 20);

Aolhelp.setColumns(10);

Aaksiop = **new** JTextField();

Aaksiop.setBounds(504, 230, 21, 20);

Aaksiop.setColumns(10);

JLabel lblT = **new** JLabel("Tιμή");

lblT.setBounds(433, 96, 46, 14);

JLabel label\_2 = **new** JLabel("καταναλωση ενεργειας");

label\_2.setBounds(396, 136, 111, 14);

JLabel lblService = **new** JLabel("Service");

lblService.setBounds(433, 170, 46, 14);

JLabel lblOnline\_1 = **new** JLabel("On-line help");

lblOnline\_1.setBounds(406, 197, 98, 14);

JLabel label\_3 = **new** JLabel("αξιοπιστια");

label\_3.setBounds(416, 233, 78, 14);

JLabel label\_4 = **new** JLabel("σχολια");

label\_4.setBounds(396, 275, 46, 14);

contentPane.setLayout(**null**);

contentPane.add(comboBox);

contentPane.add(TimhSpinner);

contentPane.add(EnergySpinner);

contentPane.add(ServiceSpinner);

contentPane.add(aksiopistiaSpinner);

contentPane.add(helpSpinner);

contentPane.add(editorPane);

contentPane.add(editorPane\_1);

contentPane.add(btnOk);

contentPane.add(timh1);

contentPane.add(energy1);

contentPane.add(service1);

contentPane.add(label);

contentPane.add(check);

contentPane.add(btnAddButton);

contentPane.add(totalScore);

contentPane.add(result);

contentPane.add(reliability);

contentPane.add(lblOnline);

contentPane.add(label\_1);

contentPane.add(Aprice);

contentPane.add(Aenergy);

contentPane.add(Aservice);

contentPane.add(Aolhelp);

contentPane.add(Aaksiop);

contentPane.add(lblT);

contentPane.add(label\_2);

contentPane.add(lblService);

contentPane.add(lblOnline\_1);

contentPane.add(label\_3);

contentPane.add(label\_4);

JButton button = **new** JButton("ΑΠΟΣΥΝΔΕΣΗ");

button.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent arg0) {

System.*exit*(0);

}

});

button.setBounds(232, 315, 115, 23);

contentPane.add(button);

}

}

# Σενάρια για User Acceptance Testing

## Test 1

Είχαμε ως απαίτηση να μπορούν να συνδεθούν οι χρήστες για αξιολόγηση αφού έχουν δημιουργήσει λογαριασμό. Η απαίτηση αυτή υλοποιήθηκε μέσω της Login Page, όπου ο χρήστης έχει τη δυνατότητα να εισάγει τα δικά του στοιχεία, ώστε να μπορεί να κάνει χρήση της σελίδας αξιολόγησης.

## Test 2

Υπήρχε η απαίτηση να μπορεί ο διαχειριστής να κάνει εισαγωγή προϊόντων και να βλέπει τι προϊόντα υπάρχουν ήδη στη βάση. Αυτό επιτεύχθηκε μέσα από την Admin Page, όπου ο διαχειριστής έχει τη δυνατότητα να προσθέσει προϊόντα και μέσω του combo box να δει ποια υπάρχουν ήδη.

## Test 3

Είχαμε την απαίτηση να μπορεί ο χρήστης, αφού συνδεθεί στη σελίδα αξιολόγησης, να επιλέξει το προϊόν που θέλει να αξιολογήσει και να μπορεί να το βαθμολογήσει βάση κάποιων κριτηρίων από το 1 έως το 5 και να γράψει σχόλια για αυτό, καθώς επίσης να έχει τη δυνατότητα να δει προηγούμενη αξιολόγηση του προϊόντος. Αυτό επιτεύχθηκε καθώς ο χρήστης, αφού επιλέξει το προϊόν, μπορεί να το βαθμολογήσει, να το σχολιάσει και να δει βαθμολογίες που είχε πάρει κατά το παρελθόν.