

## Opis odvijanja sesije

### Dodjela uloga

Moderator dodjeljuje uloge članovima ekipe, i dijelove koda koji će oni pregledati.

Uloge i podjela koda :

- Emir Agović (moderator, recezent) – HomeController
- Amar Tahirović (recezent) – HomeController
- Ahmed Ljubunčić (recezent) – RentController
- Emin Zukić (recezent) – AdminPanelController
- Emir Bronja (recezent) – Model klase

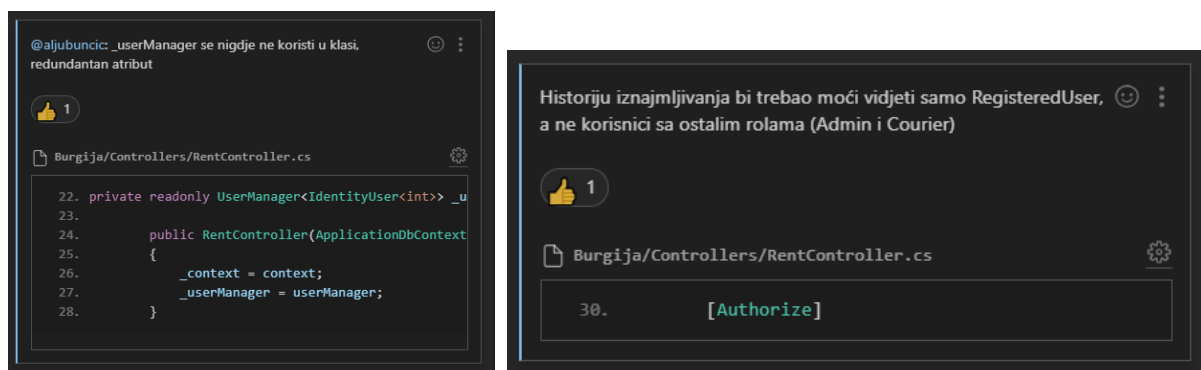
### Pronalazak grešaka

Recezeni pomoću checkliste pronalaze greške u kodu koji im je dodijeljen na pregled.

Generic Checklist for Code Reviews	
<b>Structure</b> <ul style="list-style-type: none"><li>Does the code completely and correctly implement the design?</li><li>Does the code conform to any pertinent coding standards?</li><li>Is the code well-structured, consistent in style, and consistently formatted?</li><li>Are there any uncalled or unneeded procedures or any unreachable code?</li><li>Are there any leftover stubs or test routines in the code?</li><li>Can any code be replaced by calls to external reusable components or library functions?</li><li>Are there any blocks of repeated code that could be condensed into a single procedure?</li><li>Is storage use efficient?</li><li>Are symbolics used rather than "magic number" constants or string constants?</li><li>Are any modules excessively complex and should be restructured or split into multiple routines?</li></ul> <b>Documentation</b> <ul style="list-style-type: none"><li>Is the code clearly and adequately documented with an easy-to-maintain commenting style?</li><li>Are all comments consistent with the code?</li></ul> <b>Variables</b> <ul style="list-style-type: none"><li>Are all variables properly defined with meaningful, consistent, and clear names?</li><li>Do all assigned variables have proper type consistency or casting?</li><li>Are there any redundant or unused variables?</li></ul> <b>Arithmetic Operations</b> <ul style="list-style-type: none"><li>Does the code avoid comparing floating-point numbers for equality?</li><li>Does the code systematically prevent rounding errors?</li><li>Does the code avoid additions and subtractions on numbers with greatly different magnitudes?</li><li>Are divisors tested for zero or noise?</li></ul> <b>Loops and Branches</b> <ul style="list-style-type: none"><li>Are all loops, branches, and logic constructs complete, correct, and properly nested?</li><li>Are the most common cases tested first in IF-ELSEIF chains?</li><li>Are all cases covered in an IF-ELSEIF or CASE block, including ELSE or DEFAULT clauses?</li><li>Does every case statement have a default?</li><li>Are loop termination conditions obvious and invariably achievable?</li><li>Are indexes or subscripts properly initialized, just prior to the loop?</li><li>Can any statements that are enclosed within loops be placed outside the loops?</li><li>Does the code in the loop avoid manipulating the index variable or using it upon exit from the loop?</li></ul> <b>Defensive Programming</b> <ul style="list-style-type: none"><li>Are indexes, pointers, and subscripts tested against array, record, or file bounds?</li><li>Are imported data and input arguments tested for validity and completeness?</li><li>Are all output variables assigned?</li><li>Are the correct data operated on in each statement?</li><li>Is every memory allocation deallocated?</li><li>Are timeouts or error traps used for external device accesses?</li><li>Are files checked for existence before attempting to access them?</li><li>Are all files and devices are left in the correct state upon program termination?</li></ul> <p>Copyright © 2001 by Karl E. Wieggers. Permission is granted to use, modify, and distribute this document.</p>	
Ozbiljnost	Opis
5 (kritično)	(1) Sprječava postizanje osnovnih mogućnosti. (2) Ugrožava sigurnost, zaštitu i druge kritične zahtjeve.
4	(1) Nepovoljno utiče na postizanje osnovnih mogućnosti, kada rješenje kojim se greška može izbjeći nije poznato. (2) Nepovoljno utiče na tehnički, troškovni i rasporedni rizik projekta ili sistemskog održavanja, kada rješenje kojim se greška može izbjeći nije poznato.
3	(1) Nepovoljno utiče na postizanje osnovnih mogućnosti, ali je rješenje kojim se greška može izbjeći poznato. (2) Nepovoljno utiče na tehnički, troškovni i rasporedni rizik projekta ili sistemskog održavanja, ali je rješenje kojim se greška može izbjeći poznato.
2	(1) Korisnička/operatorska neudobnost koja ne utiče na zahtijevanu misiju ili operaterove osnovne mogućnosti. (2) Neugodnost za programere ili personal na održavanju, ali ne sprečava realizaciju ovih odgovornosti.
1 (minorno)	Bilo koji drugi efekat.

### Prijava grešaka

Putem CodeStream alata dodaju issue i comment kartice koje će služiti kao uputa autoru prilikom izvršavanja korektivnih akcija.

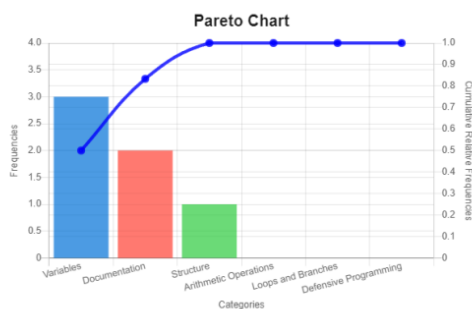


## Pojedinačni izvještaji

Recezeni pomoću tabele ozbiljnosti grešaka formiraju Izvještaj 1, pojedinačni izvještaj vezan za dio koda koji je njima bio dodijeljen na početku inspekcije.

5	Variables	W	Discount id uvijek je postavljen na null vrijednost kad se kreira Rent objekat	RentController (105)	2
6	Variables	E	_userManager se nigdje ne koristi u klasi, redundantan atribut	RentController (22)	1

a	Follow-up will be carried out by: Emir Agović
b	Re-inspection is recommended: Yes



## Sumirani izvještaj

Moderator sumira sve greške i izvještaje recezenata i formira Izvještaj 2 pomoću kojeg dobijemo jasniju sliku rezultata same inspekcije.

Inspection Session Summary Report						
The inspection team: Emir A, Emir B, Ahmed, Amar, Emin						
1 Resources invested (hours worked)						
#	Team member	Overview meeting	Preparation	Inspection session	Total (hours)	Comment
1	Inspection leader Emir A.	1	2	2	5	
2	Ahmed	1	1	2	4	
3	Amar	1	1	1	3	
4	Emin	1	1	1	3	
5	Emir B.	1	1	1	3	
Total		5	6	7	18	
2 Error summary						
Error severity	Total Errors	Error nature W M E			Severity factor	Total errors (Standardized)
5 - critical					16	
4					8	
3	11	1	10		4	44
2	10	2	6	2	2	20
1 - minor	1			1	1	1
Total	22	3	16	3		65
3 Defect detection metrics						
(1) Average defects per page = $C/A = 21/13 = 1.69$						
(2) Average defects per page (Standardized) = $D/A = 65/13 = 5$						
(3) Defects detection efficiency (hours per defect) = $B/C = 18 / 22 = 0.82$						
(4) Standardized defect detection efficiency (hours per standardized defect) = $B/D = 18 / 65 = 0.28$						
Prepared by: Emir Agović Date: 13.12.2023						
<ul style="list-style-type: none"> <li>W = WRONG</li> <li>M = MISSING</li> <li>E = EXTRA</li> </ul>						

## Korektivne akcije

Autor vrši korektivne akcije za greške otkrivene u toku inspekcije. Nakon toga, moderator potvrđuje da li su zaista izvršene korektivne akcije.