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***Roll Number: 19P1664***

***Subject: Software Design and Architecture***

***Lab task : 11***

***Instructor: Usama Musharraf***

***Size Metrics***

|  |  |  |
| --- | --- | --- |
| **NO Of Components** | **Components** | **NO OF OPERATIONS IN A COMPONENT** |
| 1 | Register/login | 2 |
| 2 | Appointment | 4 |
| 3 | Medical history | 3 |
| 4 | Medicine | 2 |
| 5 | Test | 2 |
| 6 | Bill | 3 |

***No of component =6***

***No of Operation in system=16***

***Cohesion Metrics***

|  |  |  |  |
| --- | --- | --- | --- |
| **NO Of Components** | **Cohesion Metrix**  **CM(C)** | **NO OF OPERATIONS IN A COMPONENT** | **COHF(c)=**  **CM(C)\*(i2-i)/**  **F^2-f** |
| 1 | 3 | 2 | 0.389 |
| 2 | 1 | 4 | 0.0108 |
| 3 | 1 | 3 | 0.0259 |
| 4 | 1 | 2 | 0.0129 |
| 5 | 1 | 2 | 0.0129 |
| 6 | 2 | 3 | 0.0519 |

***cohF(sys) =0.0387***

***Complexity Metrics***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **NO Of Components** | **Cohesion Metrix**  **CM(C)** | **NO OF OPERATIONS IN A COMPONENT** | **COHF(c)=**  **CM(C)\*(i2-i)/**  **F^2-f** | **TCM** | **Complexity factor** | **TCM(Sys)** |
| 1 | 3 | 2 | 0.389 | 5.666 | 0.389/2.333  =0.0166 | 5.5826 |
| 2 | 1 | 4 | 0.0108 | 19 | 0.0108/0.7  =0.0154 | 19.0154 |
| 3 | 1 | 3 | 0.0259 | 18 | 0.0259/1.1666=  0.0222 | 18.022 |
| 4 | 1 | 2 | 0.0129 | 17 | 0.0129/2.333  =0.0055 | 17.0055 |
| 5 | 1 | 2 | 0.0129 | 17 | 0.0129/2.333  =0.0055 | 17.0055 |
| 6 | 2 | 3 | 0.0519 | 9 | 0.0519/1.1666  =0.044 | 9.044 |

***TCM(SYS)=85.675***

***Total Coupling =14***