System Size

**Function Point Estimation**

| **Functionality** | **Input** | **Output** | **Queries** | **File** | **Program interface** |
| --- | --- | --- | --- | --- | --- |
| Search | 1 | 1 | 1 | 4 | 0 |
| View Results | 1 | 3 | 3 | 3 | 0 |
| Study plan | 1 | 1 | 1 | 3 | 0 |
| Registration | 1 | 1 | 2 | 1 | 0 |
| payment | 1 | 1 | 1 | 1 | 1 |

|  | **Complexity** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Description** | Total # | Low | Medium | High | Total |
| Inputs | **5** | 2**\* 3** | **2\*4** | **1\*6** | **20** |
| Outputs | **7** | **3\*4** | 4**\*5** | 0\***7** | **32** |
| Queries | **8** | **5\*7** | **3\*10** | 0**\*15** | **65** |
| Files | **12** | **6\*7** | **6\*10** | 0**\*15** | **102** |
| Program interface | **1** | 0**\*5** | **1\*7** | **0\*10** | **7** |
| **Total Unadjusted Function Point (TUFP) =** | | | | | 226 |

# The total processing complexity (PC):-



| Tasks | Complexity |
| --- | --- |
| Data communication | 3 |
| Team cohesion | 1 |
| Familiarity with technology | 3 |
| On-line data entry | 2 |
| Total Processing Complexity (TPC)= | 9 |

* **The adjusted processing complexity (APC):-**

APC=0.65 + (0.01 \* TPC) APC=0.65 + (0.01 \* 9)= 0.74

# The total adjusted function points (TAFP):-

TAFP=TUFP \* APC

TAFP= 226\*0.74= 167.24

# Converting Function Points to Line Of Code (LOC):-

| **Language/Tool** | **Number of LOC / FP** |
| --- | --- |
| HTML | 15 |
| Packages(ex.: Access, Excel) | 10-40 |
| C++ | 50 |

Just an Example Reference

* 60% will be done in C++
* 10% will be done in HTML
* 30% will be done in Access

# Number of lines of code (LOC )= TAFP \* # of( LOC\FP) \* %

For C++ = (167.24) \*(50)\*(60/100) = 5017.2 LOC For HTML = (167.24) \*(15)\*(10/100) = 250.86 LOC

For Access = (167.24) \*(40)\*(30/100) = 2006.88 LOC

So the total LOC=7274.94 LOC

# Estimating the effort:-

Effort = 2.4 \* LOC/1000

=2.4\*7274.94/1000

=17.45 person month

# Estimating the schedule time:-

Time = 2.5 \* (effort) 0.38

=2.5\* (17.45) 0.38

=7.41 months

# Estimating the number of persons:-

average of # of persons = effort/time

= 17.45 /7.41

= 2.35 persons