System Size

Function Point Estimation

Functionality	Input	Output	Queries	File	Program interface
Authorization	1	2	2	0	0
Import course information	1	2	1	1	0
Create schedules	1	2	10	1	0
Apply filter	1	2	1	1	0

	Complexity				
Description	Total #	Low	Medium	High	Total
Inputs	**4**	2* **3**	**1*4**	**1*6**	**16**
Outputs	**8**	**4*4**	4***5**	0***7**	**36**
Queries	**14**	**3*7**	**10*10**	1***15**	**136**
Files	**3**	**3*7**	**0*10**	0***15**	**21**
Program interface	**0**	0***5**	**0*7**	**0*10**	**0**
Total Unadjusted Function Point (TUFP) =					209

The total processing complexity (PC):-

Tasks	Complexity
Data communication	2
Team cohesion	1
Familiarity with technology	2
On-line data entry	2
Total Processing Complexity (TPC)=	7

- **The adjusted processing complexity (APC):-**
  APC=0.65 + (0.01 * TPC)
  APC=0.65 + (0.01 * 7)=
  0.72

- **The total adjusted function points (TAFP):-**
  TAFP=TUFP * APC
  TAFP= 209*0.72= 150.48

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

Language/Tool	Number of LOC / FP
HTML	15
Google Firebase	21
Python	53

- 60% will be done in Python
- 10% will be done in HTML
- 30% will be done in Google Firebase

- **Number of lines of code (LOC)= TAFP * # of(LOC\FP) * %**
  For Python = (150.48) *(53)*(60/100) = 4785.26
  LOC
  For HTML = (150.48) *(10)*(10/100) = 150.48 LOC
  For Google Firebase = (150.48) *(21)*(30/100) = 948 LOC
  So the total LOC= 5883.74 LOC

- **Estimating the effort:-**
  Effort = 2.4 * LOC/1000
  =2.4*5883.74/1000
  =14.12 person month

- **Estimating the schedule time:-**
  Time = 2.5 * (effort) $^{0.38}$
  =2.5* (14.12) $^{0.38}$
  =6.83 months

- **Estimating the number of persons:-**
  average of # of persons = effort/time
  = 14.12 /6.83
  = 2.07 persons