



# INQAAHE FORUM 2022

MEXICO CITY | JUNE 6-9, 2022

## Sustainable Quality Assurance:

Optimizing Synergies between Artificial and Human Intelligence

**SAVE THE DATE**





## SESSION 3

STUDENTS' DROPOUT SOLUTION USING SMART AI: EXPLORING  
UNIQUE WAY FOR THE RETENTION OF PROSPECTIVE STUDENT

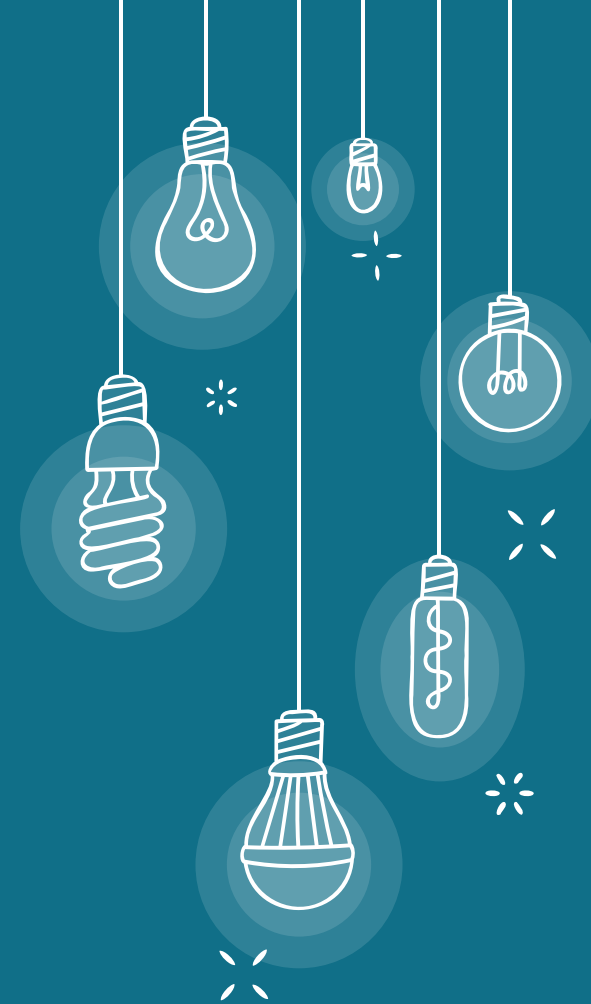
# TEAM PRESENTATION



**Dr. Mohamed Emran Hossain**  
Daffodil International University



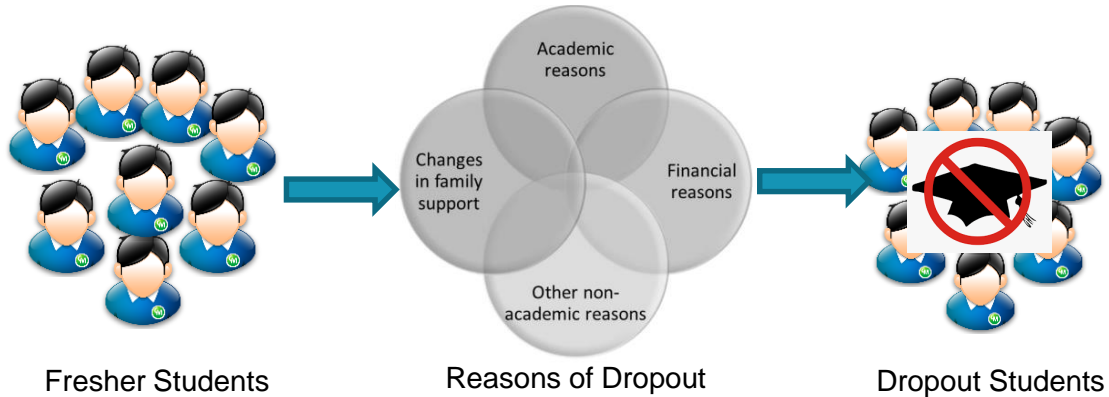
**Nafees Imtiaz Islam**  
Daffodil International University



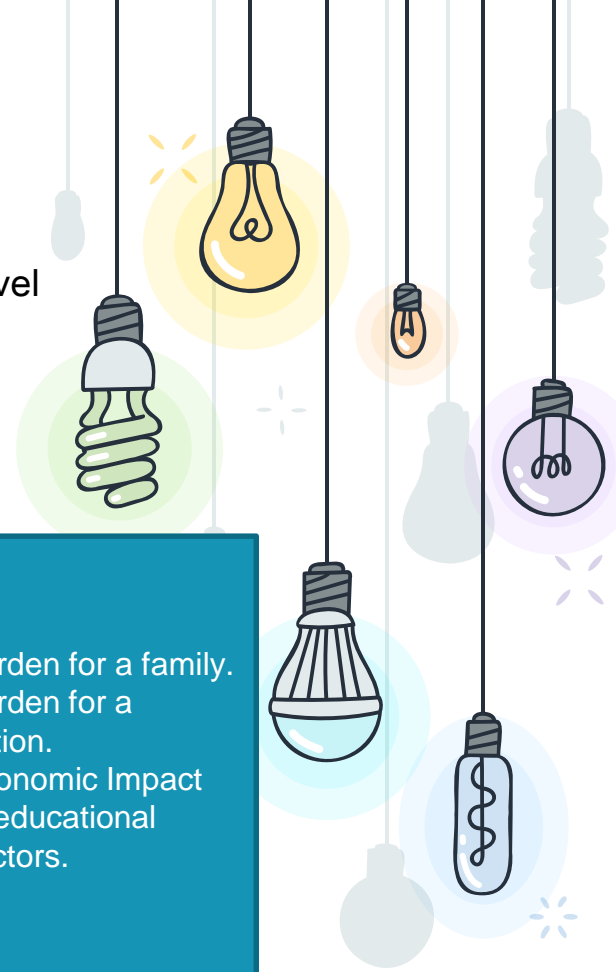
# ✨ WHAT IS DROPOUT?



Dropout students are defined as who leave the specified level without completing their study period.

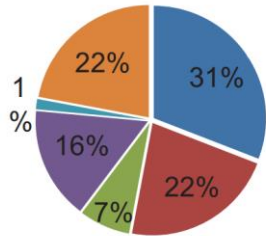


- Burden for a family.
- Burden for a nation.
- Economic Impact at educational sectors.

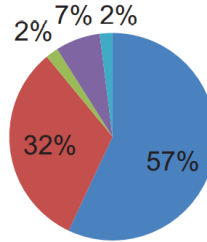


# WHAT ARE THE REASONS OF STUDENT DROPOUTS?

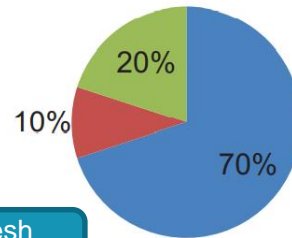
- Academic problem
- Financial Problem
- Job Related
- Family Problem
- Security
- Change of University



## Academic



## Financial



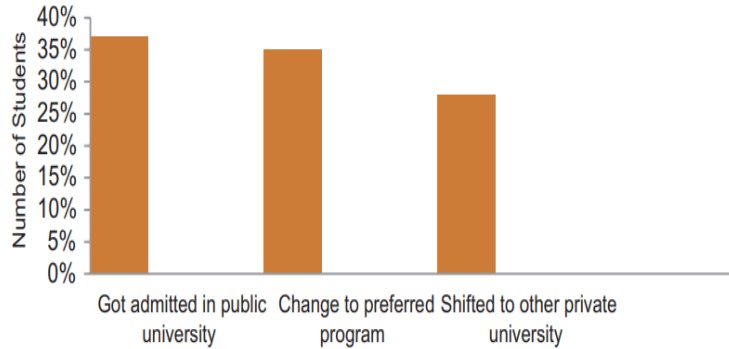
- Pressure of Study
- Weak in English
- Could not Adjust
- Failed in Course(s)
- Credit not accepted

- Financial Crisis after Admission 70%
- Cancel of Waiver 10%
- High dues 20%

Port City International University, Chittagong, Bangladesh  
Case Study result

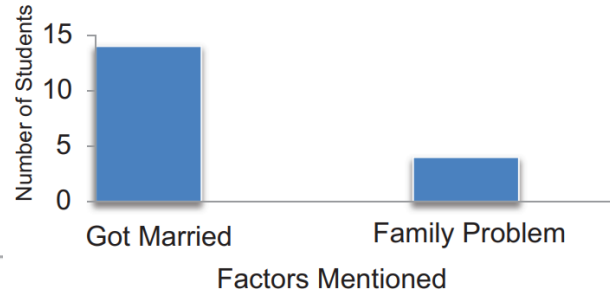
# WHAT ARE THE REASONS OF STUDENT DROPOUTS?

## Change of University



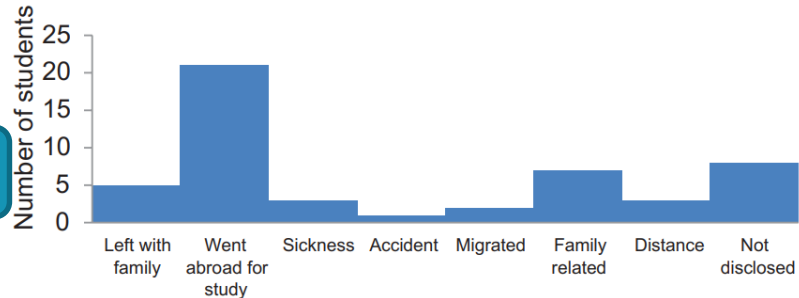
Factors Mentioned

## Family related



Factors Mentioned

## Others

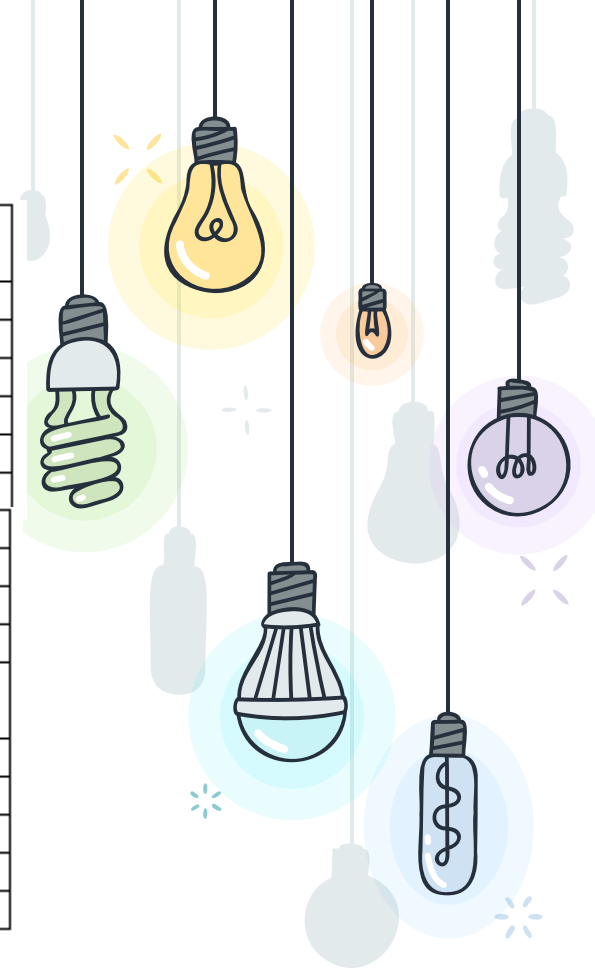


Causes mentioned

Port City International University, Chittagong, Bangladesh  
Case Study result

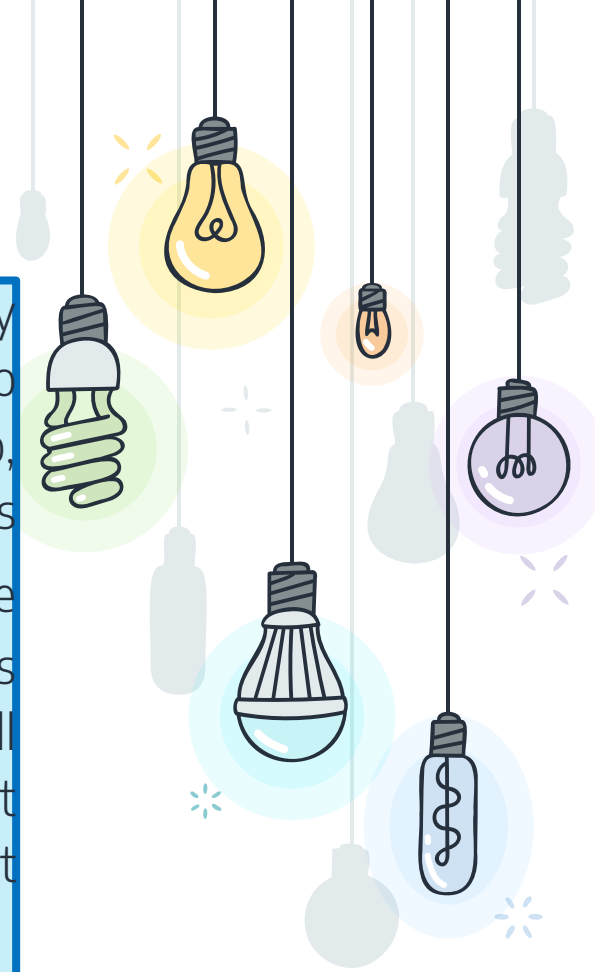
# WHAT ARE THE REASONS OF STUDENT DROPOUTS?

Reasons for dropout up to graduation	Zambia (%)	Bangladesh (%)	Nepal (%)	Uganda(%)
Lack of money	55.3	61.9	14.9	4.8
Family problem	14.4	11.5	24.1	6.8
Difficulties with school work	0	3.5	0	0.8
Expelled from school	0.5	0.9	0	0.8
Earning money	0	2.7	13.8	0.8
Needed to work at home	0	5.3	13.7	0.8
Illness	2.9	3.5	4.6	9.8
Marriage	1	0	8	7.5
Pregnancy	1.9	0	0	9.8
Death in the family	1	0.9	1.1	2.3
Failed in a grade and have to repeat	11.5	2.7	4.6	1.5
Think old to go to school	0	0	1.1	1.5
Finishing the chapter at secondary	3.4	0	5.7	4.5
Transfer	0	0	0	0.8
Withdrawn by parent/ guardian	0	0	3.4	0.8
Total dropout	91.9	92.9	95	96.6



## ❁ THE PROJECT: STUDENTS' DROPOUT SOLUTION

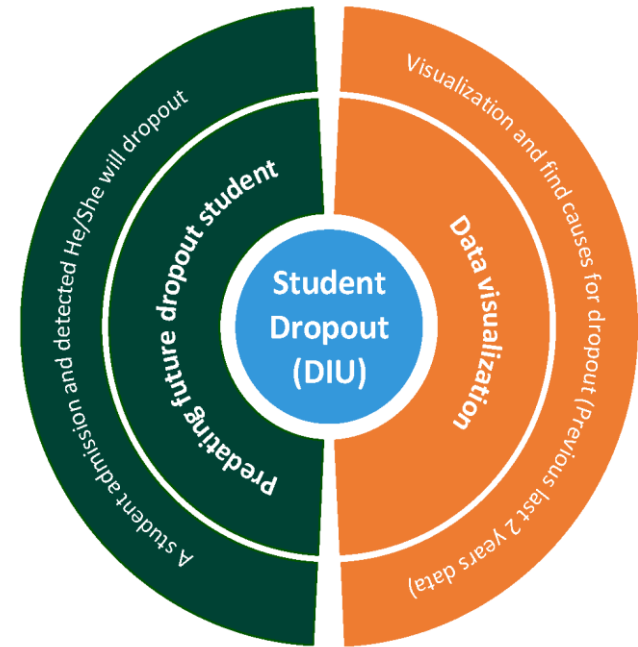
Students' dropout solution is a unique tools, being used by faculty members of Daffodil International University (DIU) to check the status of each student regarding the overall scenario, using different parameters and employing **sentiment analysis** as well. It's an **Artificial Intelligence (AI)** operated module designed to evaluate the dropout tendencies among students and has been using to find out the real reason which will facilitate concerned faculty members to take right and correct measures, accordingly and paves the way for improvement against challenges.



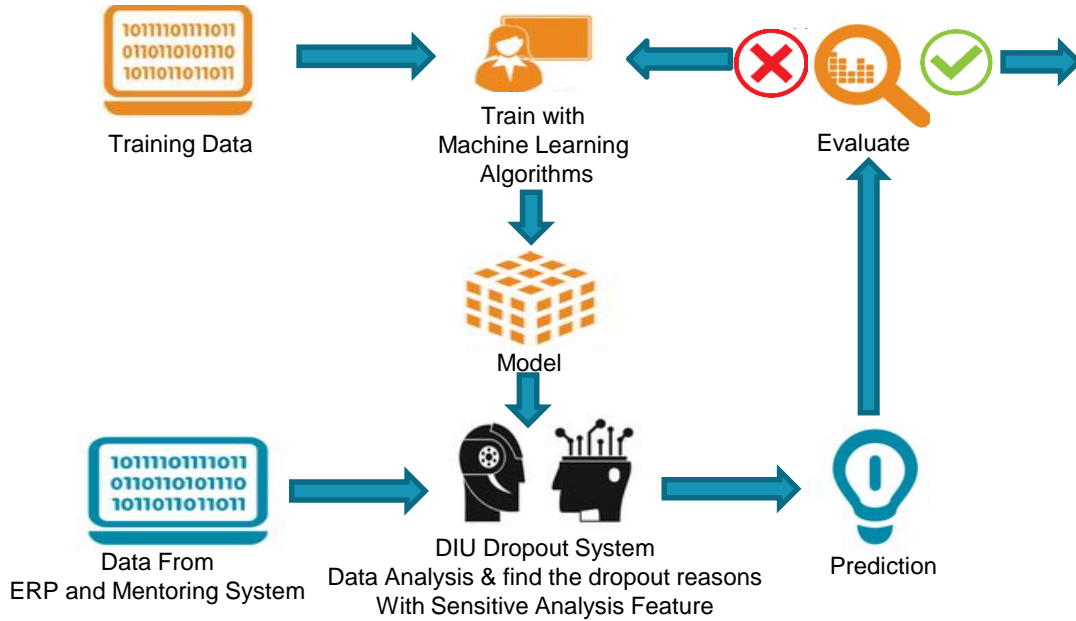


# \* THE PROJECT: STUDENTS' DROPOUT SOLUTION

- Determine the probability of dropping out
- Working toward a real-time snapshot of a student's dropout risk
- Data Visualization in Web Application & Mobile App
- Live data integration from Educational ERP by API
- Facilitate to achieve better reputation by minimizing students dropout
- Generate more revenue by minimizing student's dropout
- Help to develop students' future career by minimizing students dropout
- Facilitate to deliver smart and latest services.
- Starting the journey with descriptive analytics
  - Helping boost graduation rates by minimizing Dropout
  - Intervening early to get students moving in the right direction
  - Sharing the model with other districts
  - Turning a vision into reality
- Data Management and Analytics
- Dashboards for Whole Scenario, Faculties, Departments, Semesters, Individual Students



# DIU DROPOUT SYSTEM

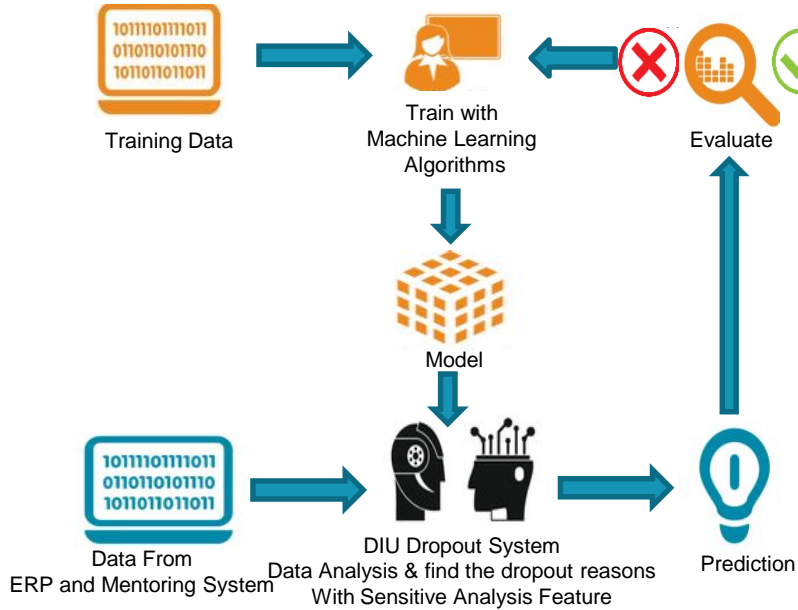


### Dropout System Frontend Features

The Dropout System Frontend Features include:

- Data Visualization with Dropout reasons**: A dashboard showing various charts and graphs.
- Sentiment Analysis**: A dashboard showing sentiment analysis results.
- Mentoring System**: A dashboard showing mentoring system details.
- Individual student analysis**: A dashboard showing individual student analysis.
- Faculty & Dept. wise Dashboard**: A dashboard showing faculty and department-wise data.
- Teachers Evaluation**: A dashboard showing teachers' evaluation.
- Teacher & Course wise Dropout Info**: A dashboard showing teacher and course-wise dropout information.

# DIU BENEFITS



**Dropout System Frontend Features**

- Data Visualization with Dropout reasons
- Sentiment Analysis
- Mentoring System
- Individual student analysis
- Faculty & Dept. wise Dashboard
- Teachers Evaluation
- Teacher & Course wise Dropout Info

University can get following benefits

- Revenue Projection
- Waiver Distribution
- Faculty & Dept. Monitoring/ Development
- Mentors Performance analysis
- Teachers Performance analysis
- Students Performance analysis
- Admission & Students Affairs road map projection
- Decision making for Infrastructure Development
- R&D for the Education Sectors

# PARAMETERS CONSIDERATION

## Independent Parameters used for training the model

Faculty  
Department  
ATTENDANCE  
QUIZ  
MID\_TERM  
GRADE\_OBTAINED  
COURSE\_ID  
ATTENDANCEPERCENTAGE  
MENTORS\_FEEDBACK  
SEX  
RELIGION  
SSC\_CGPA  
HSC\_CGPA  
MARITAL\_STATUS  
FATHERANNUALINCOME  
MOTHERANNUALINCOME  
LOCALGUARDIANRELATION  
BEAR\_EDU\_EXPENSE  
ENROLLMENT\_AGE  
PRE\_ADDRESS  
SGPA  
CREDIT  
PAYABLE  
PAID  
DUE

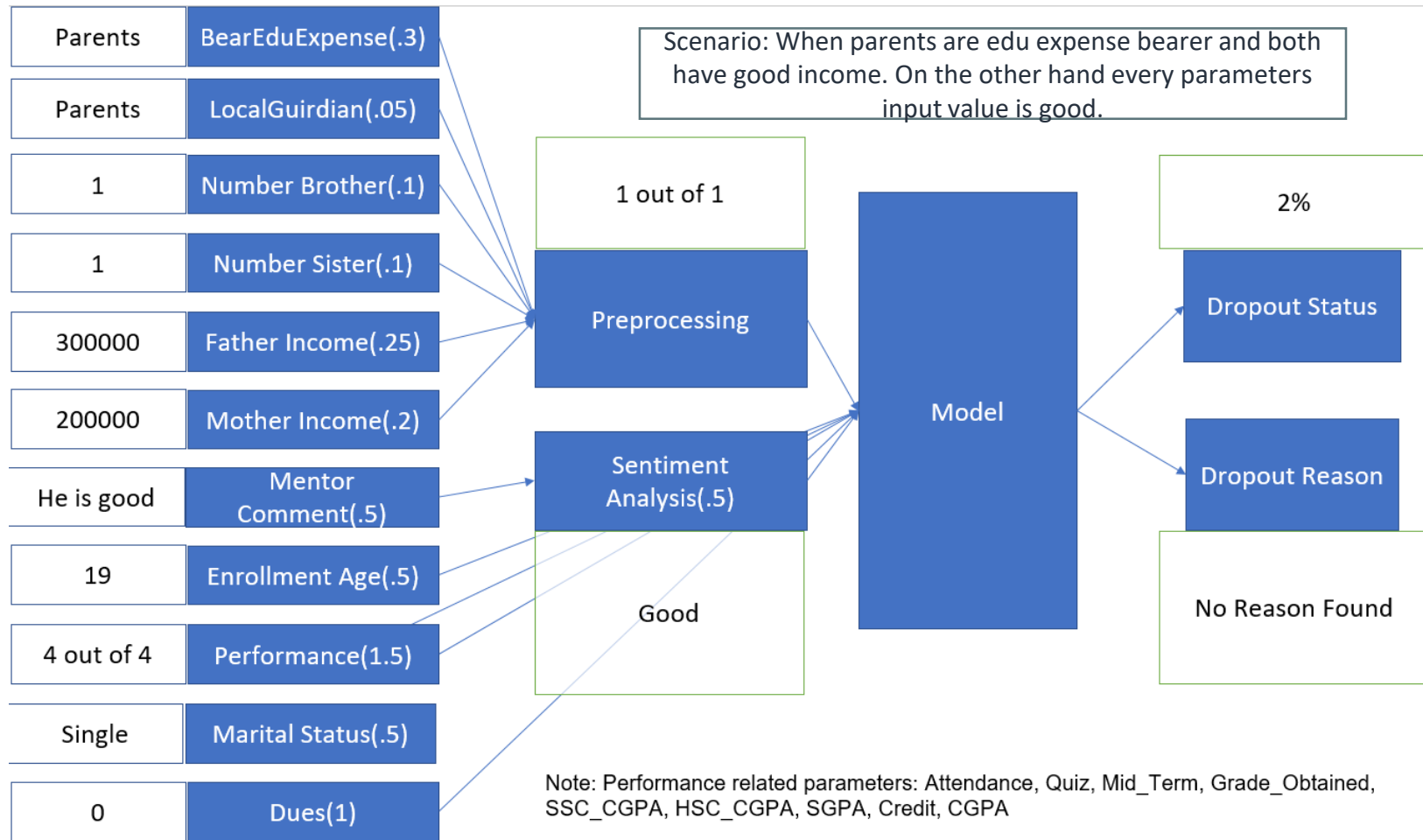
## Parameters used for visualize

CAMPUS\_NAME  
BATCH\_ID  
PROGRAM\_NAME  
PROG\_SHORT\_NAME  
DEPT\_SHORT\_NAME  
DEPARTMENT\_NAME  
FACULTY\_NAME  
FAC\_SHORT\_NAME  
SEMESTER\_ID  
SEMESTER\_NAME  
PRESENT\_HOUSE  
PRESENT\_CITY:  
PRESENT\_DISTRICT:  
PERMANENT\_HOUSE:  
PERMANENT\_CITY  
PERMANENT\_DISTRICT  
STUDENT\_ID  
Dropout Reason  
Dropout Status  
NAME

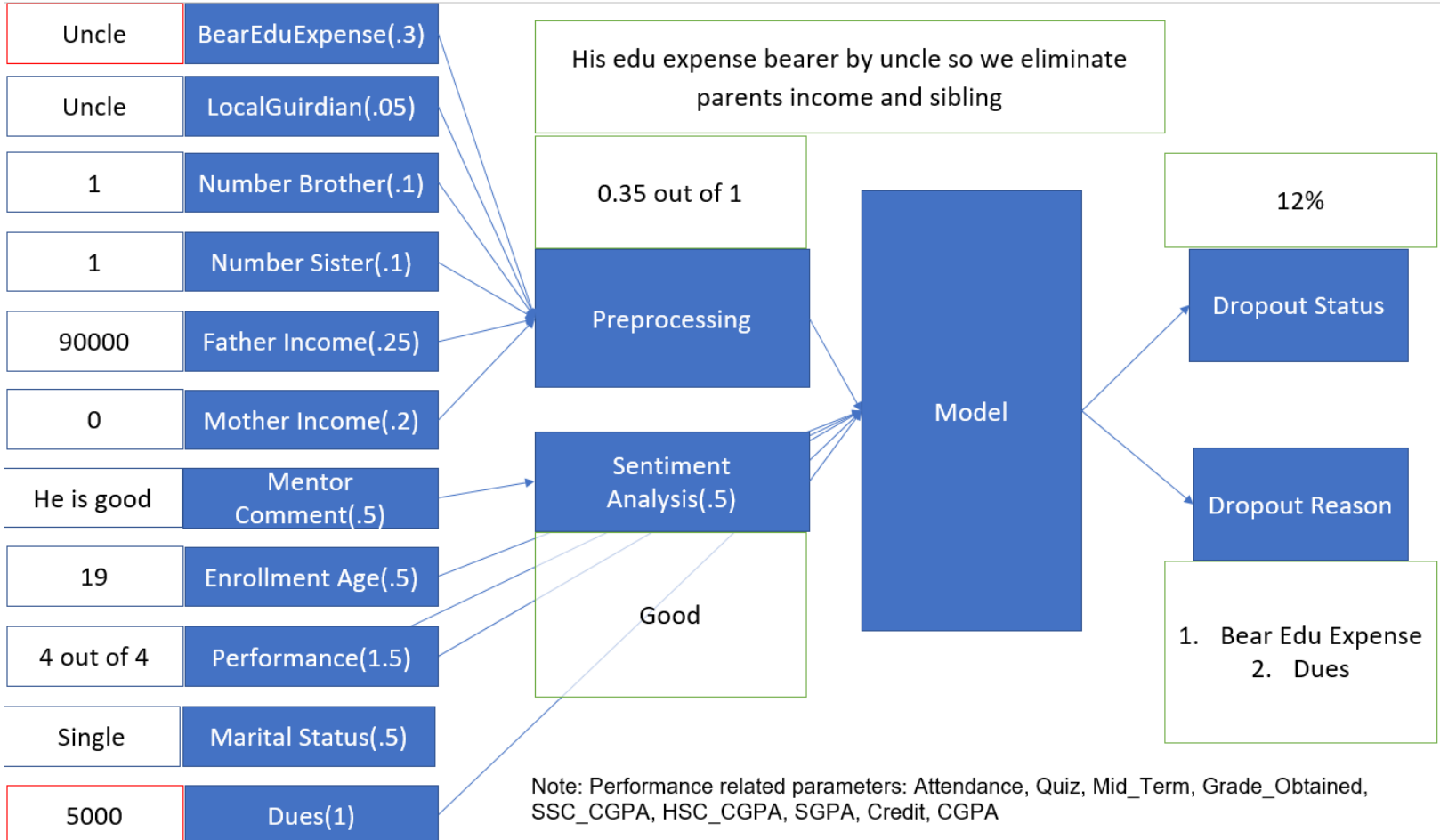
## Dependent parameter/Target Variable

Dropout Reason  
Dropout Status

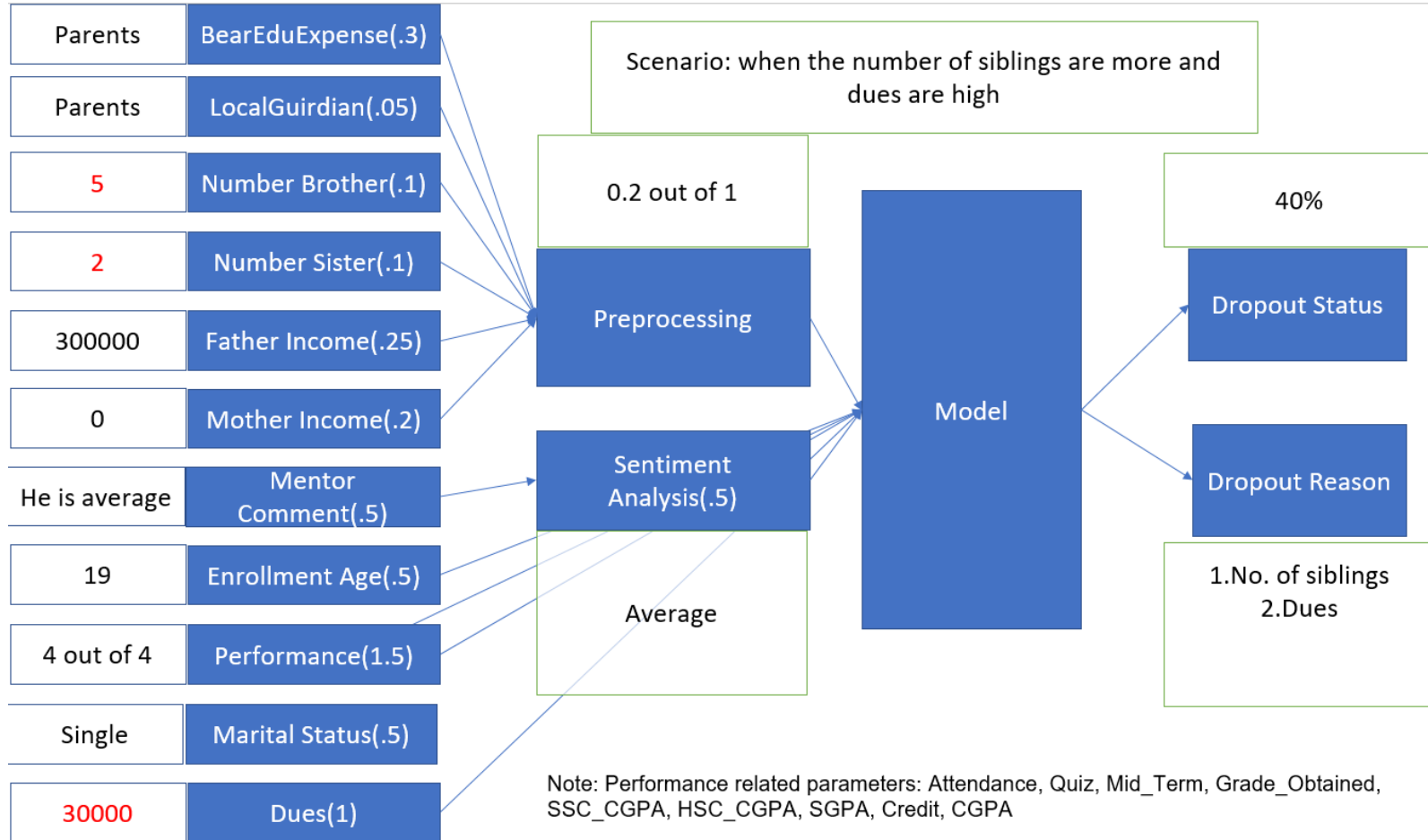
# SOME SCENARIOS WITH PARAMETERS



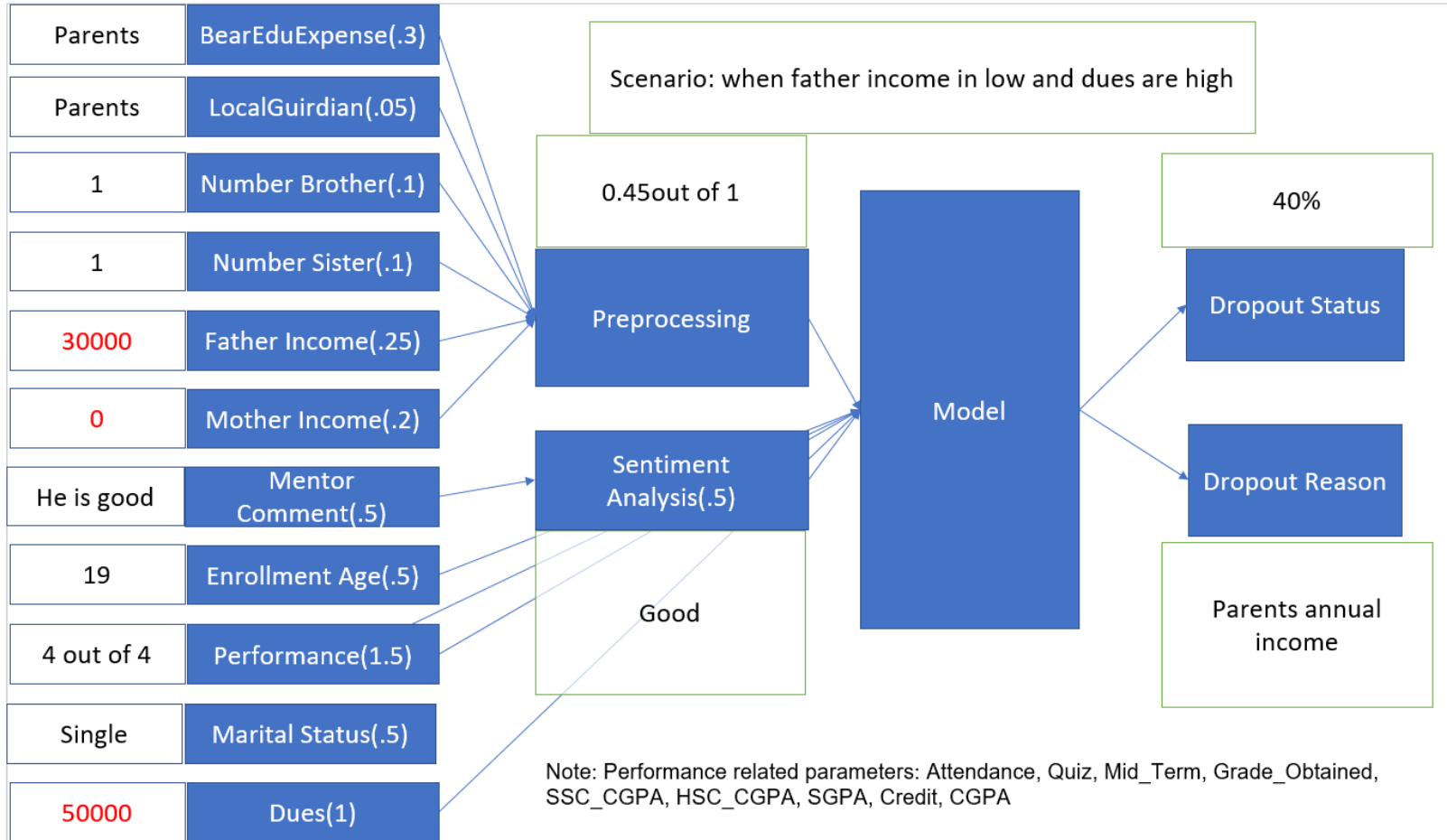
# SOME SCENARIOS WITH PARAMETERS



# SOME SCENARIOS WITH PARAMETERS

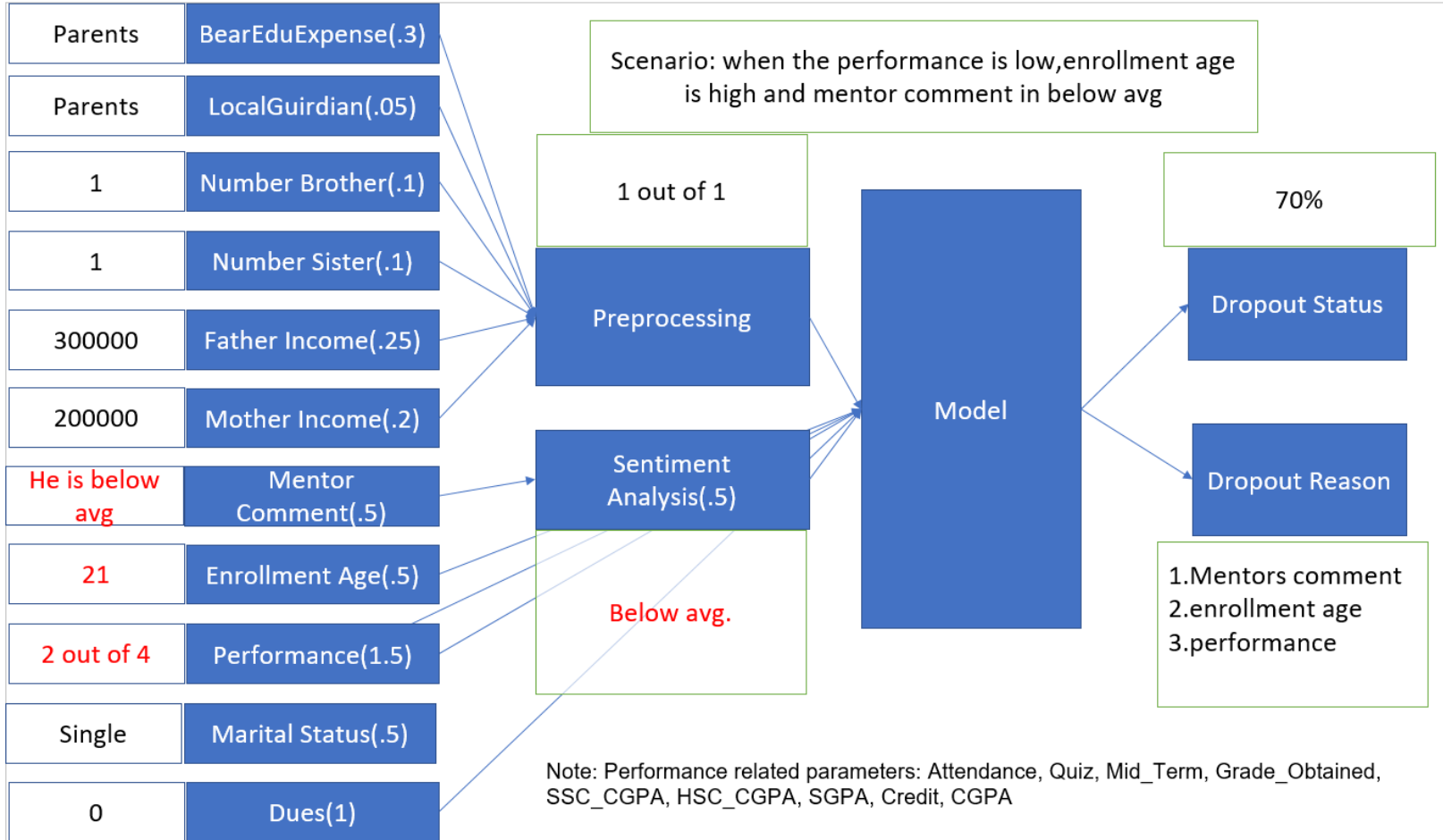


# SOME SCENARIOS WITH PARAMETERS

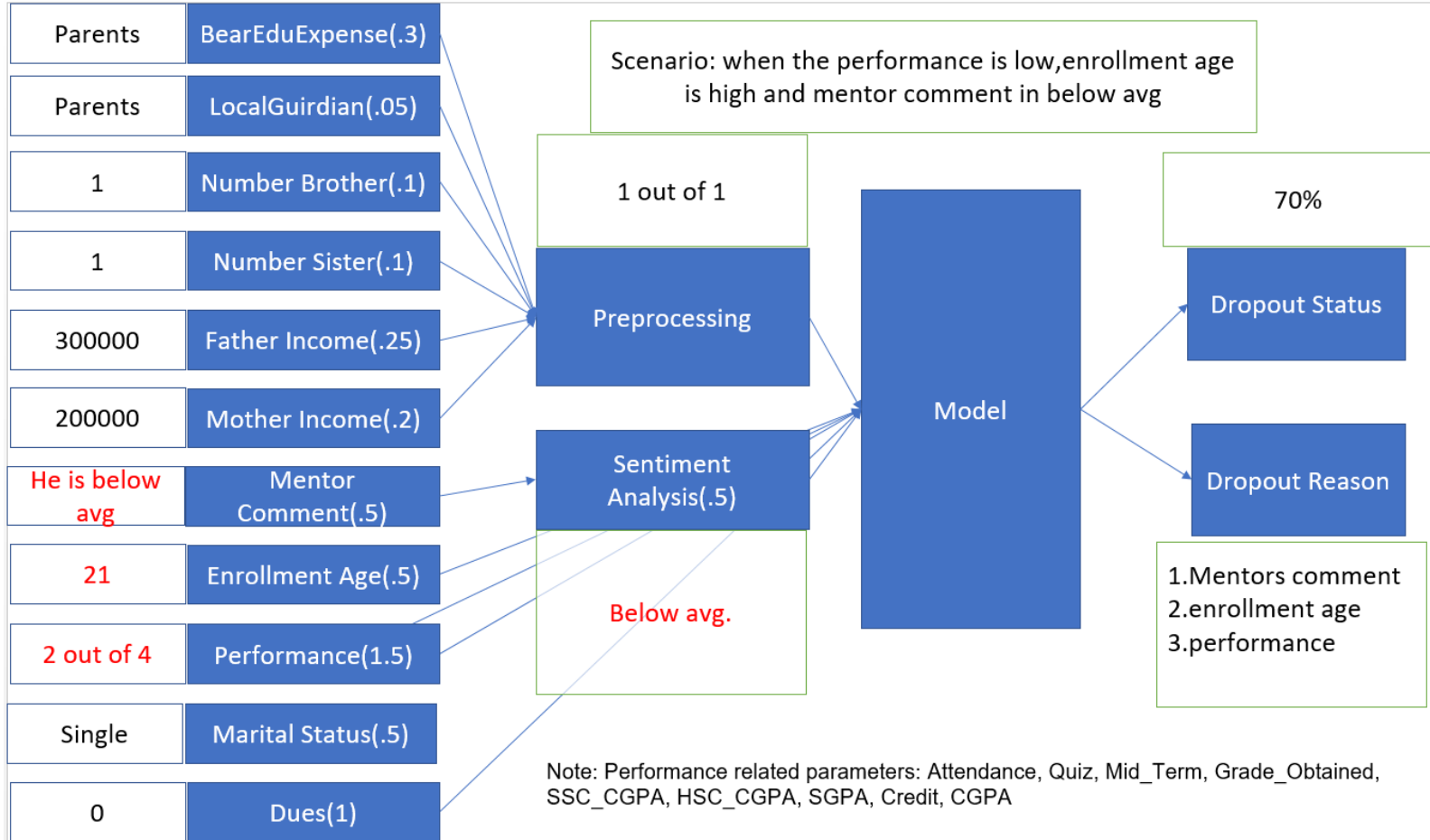




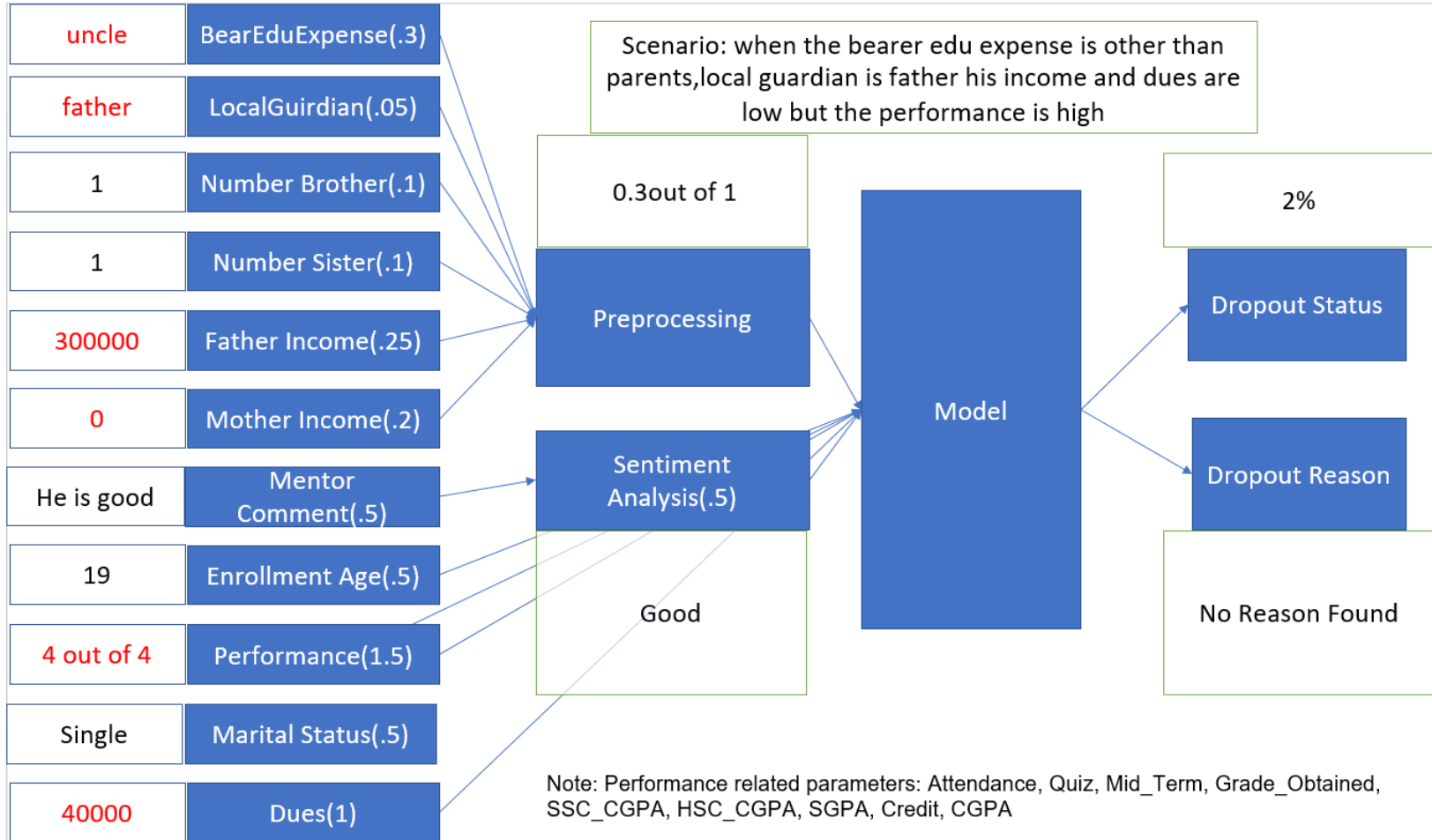
# SOME SCENARIOS WITH PARAMETERS



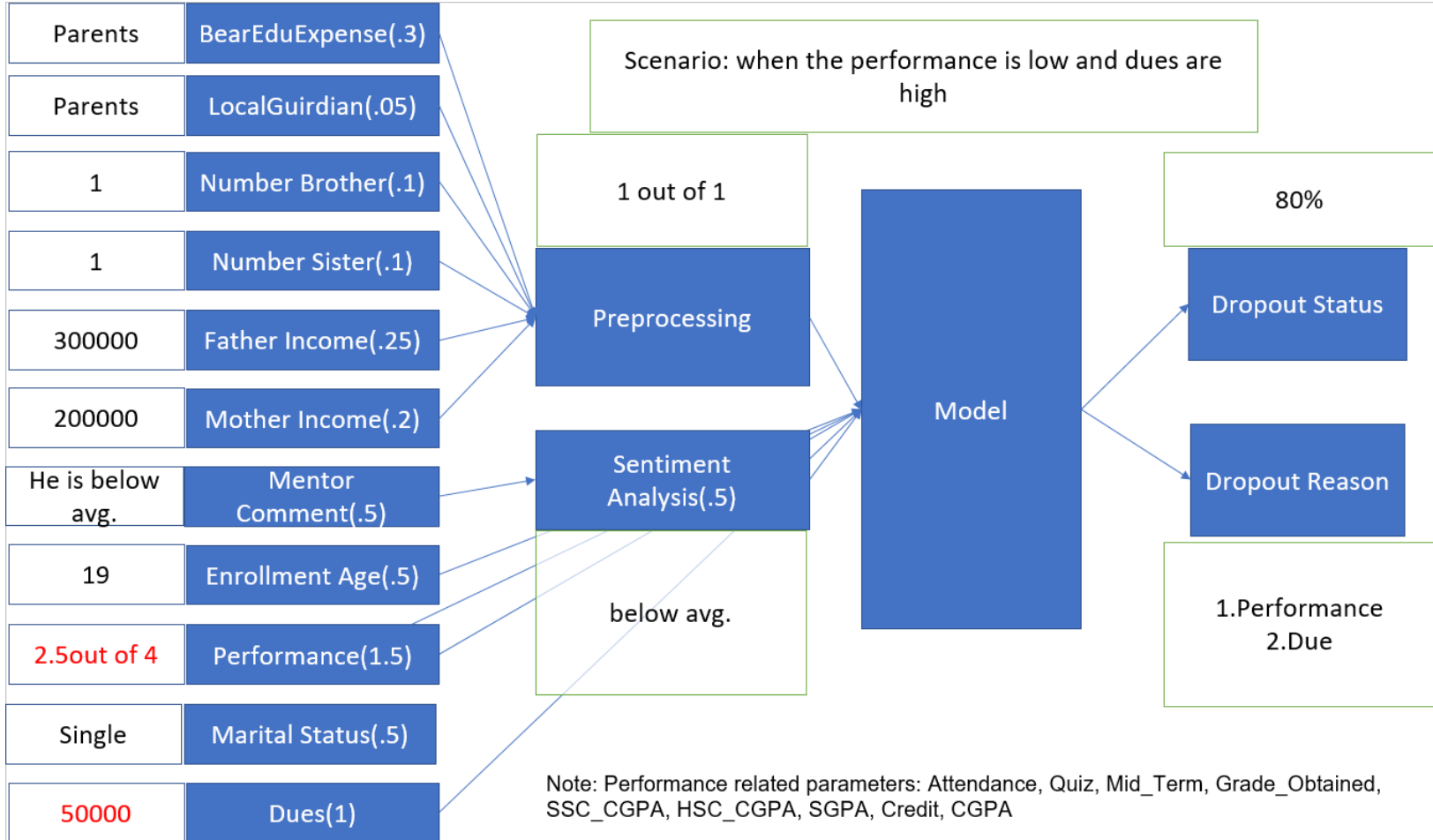
# SOME SCENARIOS WITH PARAMETERS



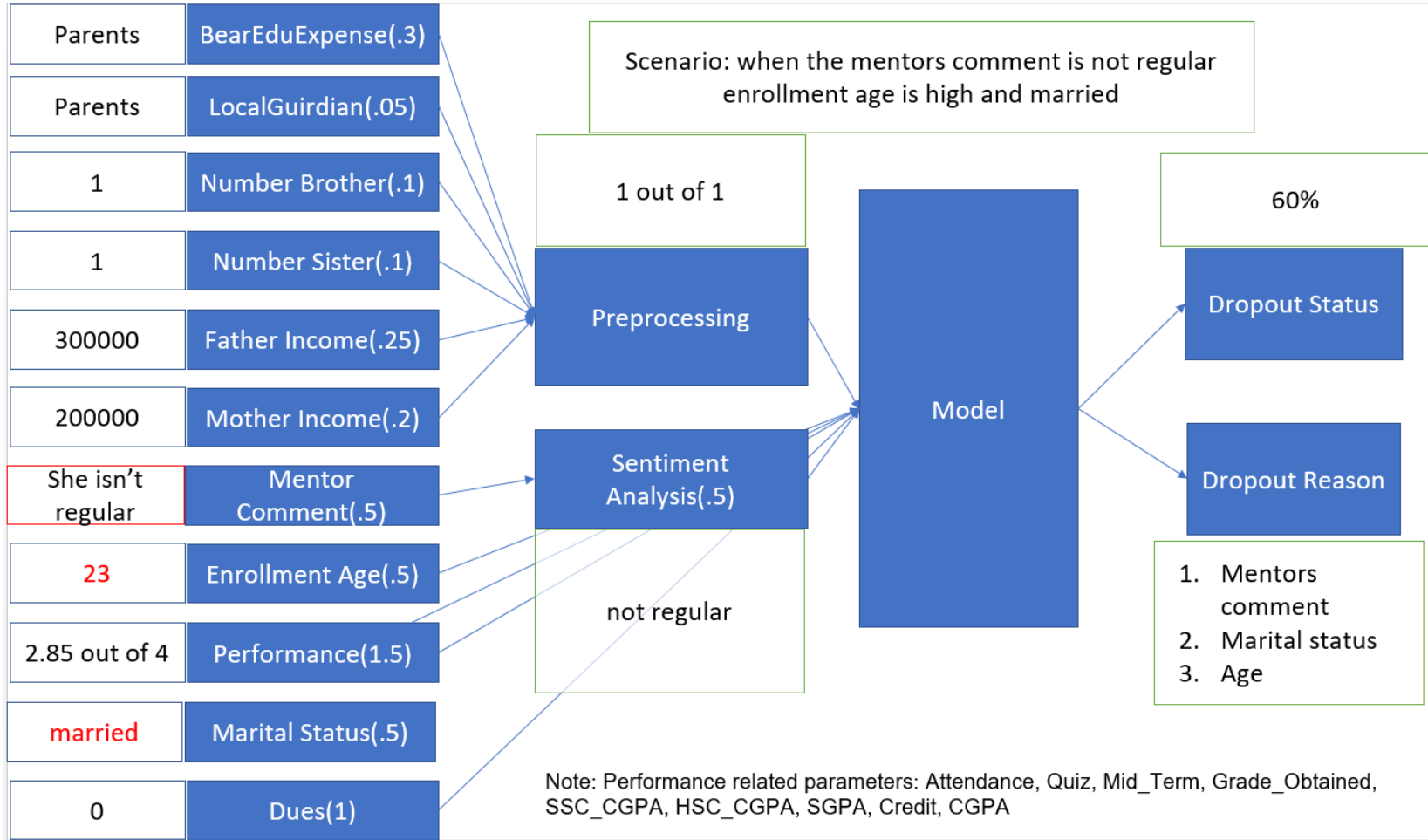
# SOME SCENARIOS WITH PARAMETERS

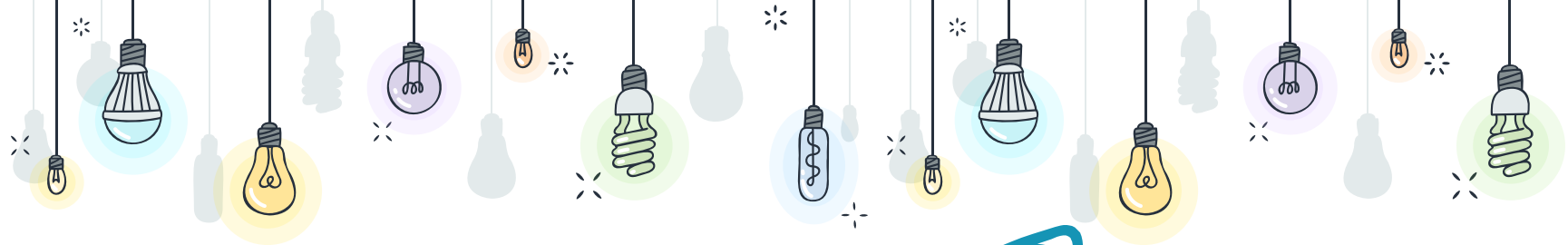


# SOME SCENARIOS WITH PARAMETERS



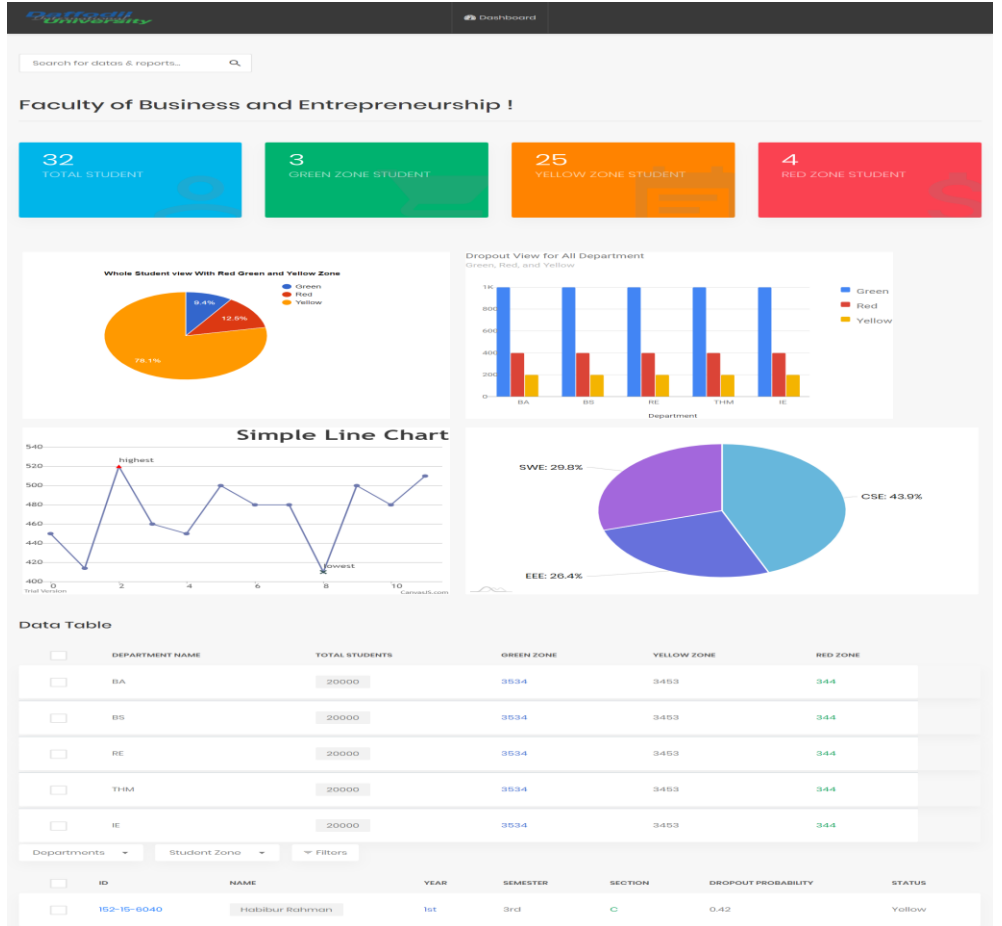
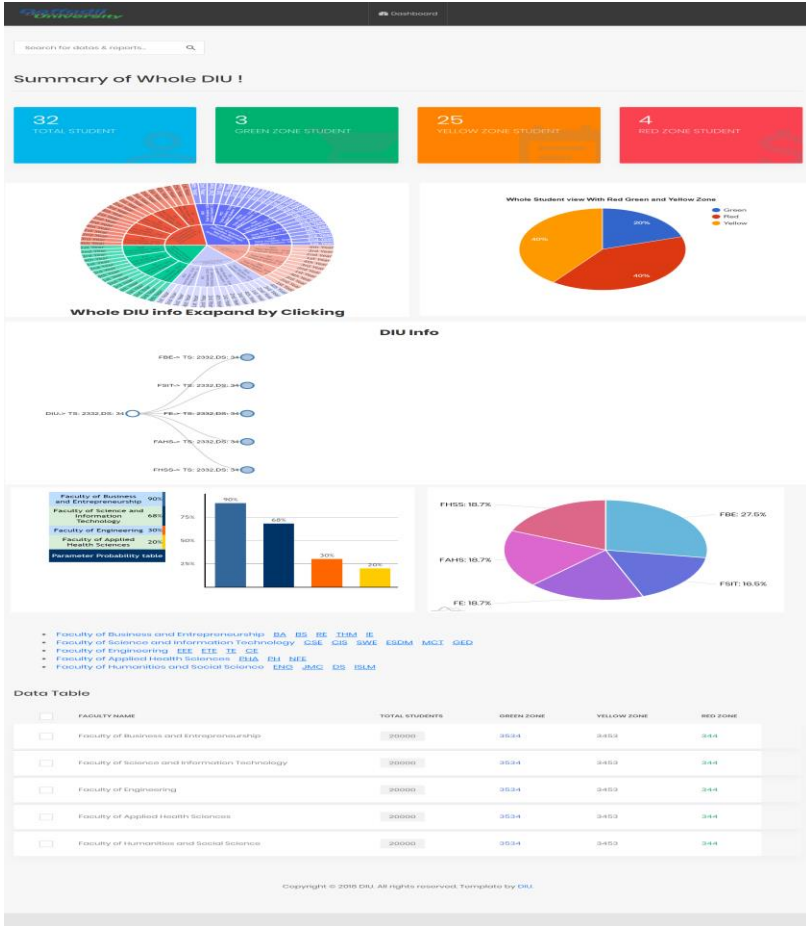
# SOME SCENARIOS WITH PARAMETERS





# THE INTERFACE

# DASHBOARD





Welcome to Student Mentoring Management System

Total Student  
204

Green Zone Student  
116

Yellow Zone Student  
65

Red Zone Student  
23



Mentoring Management System

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Developed by DIU Software Team

## MENTORING SYSTEM DASHBOARD

Click this URL <http://software.diu.edu.bd/mentoring> this will redirect you to the login page. After you login above mentioned page will open. You will see Total Number of Student assigned to you for mentoring with Red, Green, Yellow status.

1. **Red:** High Probability to Dropout
2. **Yellow:** Moderate Probability to Dropout
3. **Green:** Safe Zone Student



Dashboard

Assign Student

Reassign Student

Dean Access

Head Access

Associate Head Access

Advisor Access

Course Counselling

Teacher Lookup

Mentor Assessment

Logout

Total Number of Student Assign: 256

Total Number for Mentoring : 204

Total Number of pass out/Completed Student: 52

## Mentoring Student List

Action	Student Id <sup>1</sup>	Name	CGPA <sup>2</sup>	Credit Com. <sup>3</sup>	DUE	DO Zone	Email	Mobile	Father Mobile	Mother Mobile
Mentoring	133-40-080	Prodduth Kumar Paul Raath	2.61	143	70028	Green	prodduth080@du.edu.bd	8801722104413	+88 01937973486	+88 01674541028
Mentoring	133-40-083	Nilay Chandra Saha	1.84	138	30080	Green	nilay083@du.edu.bd	8801825520030	01987014239	01987014239
Mentoring	142-40-140	Mamunur Rashid	2.7	141	0	Green	mamunur140@du.edu.bd	8801830290896	01819088913	01827946890
Mentoring	153-40-269	Md Amin	2.74	141	30280	Green	amin40-269@du.edu.bd	8801538-15999	01873833086	01623157194
Mentoring	153-40-271	Muhammad Mahir Mohamie	3.3	141	3900	Green	mahi40-271@du.edu.bd	8801667098577	01715010345	01911482716
Mentoring	153-40-281	Md Mahbob Rahman	3.64	143	21750	Green	mehbob40-281@du.edu.bd	8801521334834	01933302008	01902675324
Mentoring	153-40-284	Md Nahid - Al - Hanhan	2.58	141	20000	Green	nahid40-284@du.edu.bd	8801714443322	01742451496	01990390282
Mentoring	181-40-304	Sovan Dhan	2.66	133	24300	Green	sovan40-304@du.edu.bd	8801677914368	01715093497	01723209180
Mentoring	181-40-326	Christopher Apurba Datta	2.88	141	500	Green	christophe40-326@du.edu.bd	8801687-135773	01819707158	xxxxxx
Mentoring	181-40-330	Md Raiunul Haque Niloy	2.53	141	16140	Green	niloy40-330@du.edu.bd	8801880061029	01515289114	01748630448
Mentoring	182-40-332	Subrina Haque	3.42	141	54740	Green	subrina40-332@du.edu.bd	+8801748934630	+8801978976767	+8801
Mentoring	182-40-333	Abdulrah Al Mamun	3.61	132	1000	Green	abdu40-333@du.edu.bd	+8801477895816	+8801725933408	+88016777676747
Mentoring	182-40-334	Hasibur Rahman Auppan	3.38	121	980	Green	hasibu40-334@du.edu.bd	+8801793076826	+8801718303927	+8801840386445
Mentoring	182-40-335	Abir Alam Akash	3.35	133	34327.5	Green	abir40-335@du.edu.bd	+8801538995042	+8801914814570	+8801
Mentoring	182-40-338	Faizul Hadim Hasan	2.43	135	52770	Green	faizul40-338@du.edu.bd	+8801786899963	+8801719967666	+8801739757873

Pass out/Completed Student List

## MENTORING SYSTEM ADVISOR ACCESS

Click on Advisor access you will get all the student with their dropout status which had been marked by red rectangle. There is search box you search a student by Dropout Zone or by their id and name.

The screenshot shows a student profile page. On the left is a circular placeholder for a student photo. To its right is a form with two columns of fields. The first column contains: Name of Student, Student ID, Email, Mobile No, Father's Name, Father's Mobile No, Mother's Name, and Mother's Mobile No. The second column contains: Local Guardian's Name & Relation, Local Guardian's Mobile No, Blood Group, Present Address, and Permanent Address. Below the form is a section titled "Major Dropout Causes According to Machine Learning Analysis" with a red "Red" status indicator. It contains a horizontal bar chart with two columns: "Dropout Causes According to ML Analysis" and "Dropout Causes Probability According to ML". The chart shows the following data:

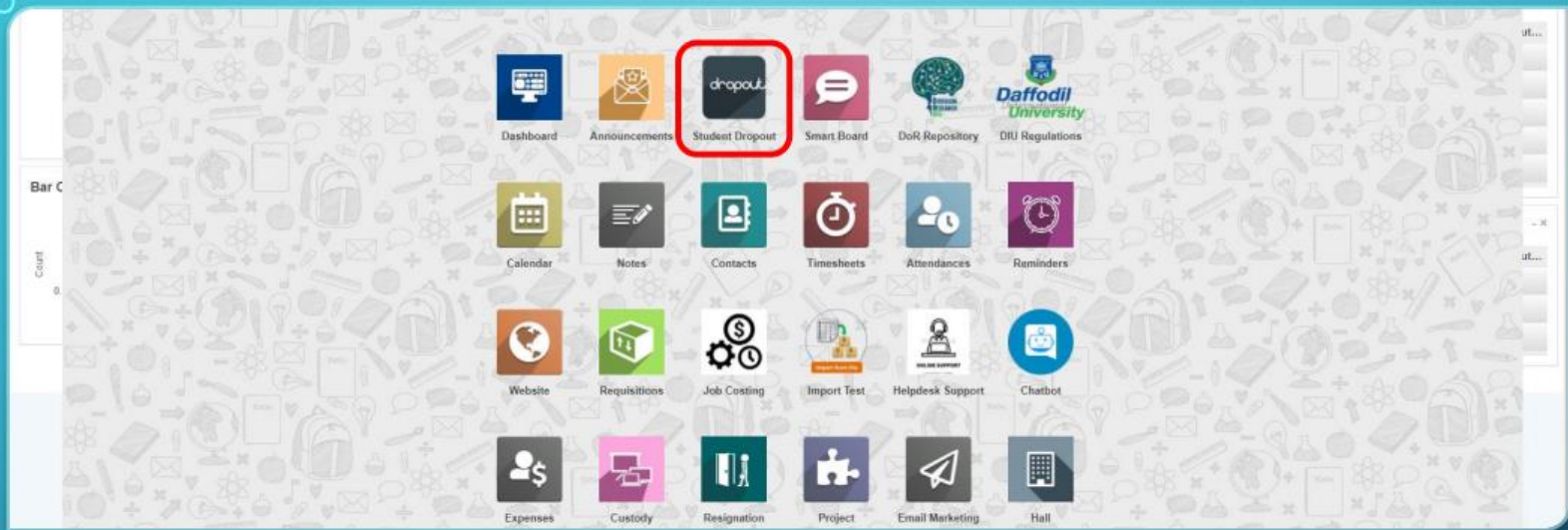
Dropout Causes According to ML Analysis	Dropout Causes Probability According to ML
Parents total income is incorrect in ERP Please Update	39%
Attendance	93.84%
SGPA	98.5%
presentation	100.0%
Assignment	100.0%

Below the chart is a teal bar labeled "Course Need to Retake".

## MENTORING SYSTEM SPECIFIC STUDENT

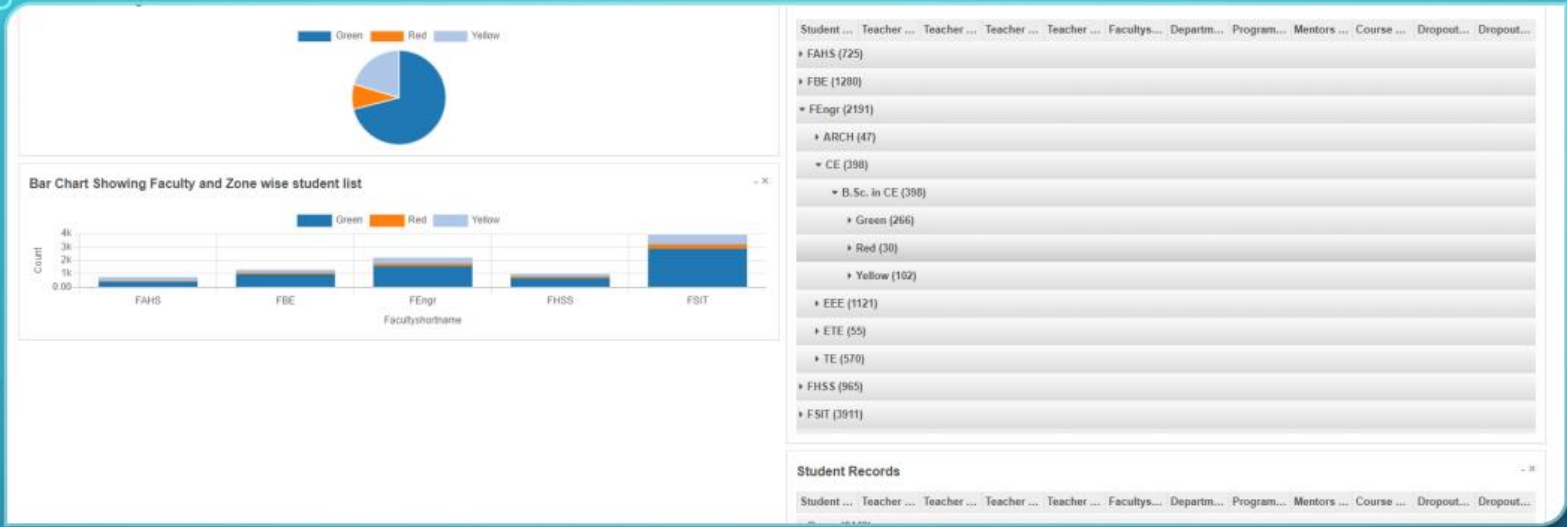
If you click in any specific student from advisor access page you will get details information of that student with mentioned feature below.

1. Major dropout cause according to machine learning with probability.
2. Number of course need to retake



## DROPOUT IN SmartEDU

Click this URL <http://pd.daffodilvarsity.edu.bd/web> this will redirect you to the login page. After you login above mentioned page will open. You will see all the module you have permission to use. If you have permission to use dropout student module you will see red marked icon as mentioned above. Click on it you will be redirect to the dropout dashboard page



# DROPOUT DASHBOARD IN SmartEDU

In this page you will get overall information of all the faculty, department and student with the status of **Red**, **Yellow** and **Green**. You can expand the view



Student Dropout

Dashboard **Get Dropout Student** Get Sentiment Get Teacher Analysis Custom Dashboard Teacher Evaluation

Mr. Habib

Dropout

Create Import

Search

Filters Group By Favorites

1-5 / 5

Student Id	Teacher Id	Teacher Name	Teacher Email	Teacher Mobile	Facultyshortname	Departmentshortname	Programshortname	Mentors Feedback	Course Need To Retake	Dropoutstatus	Dropout Cause	
FAHS (725)												
FBE (1280)												
Business Admin (1054)												
Business Studies (15)												
EntiP (30)												
Real Estate (1)												
B.R.E. (1)												
Yellow (1)												
<input type="checkbox"/>	113-27-230	710001218	Ms. Fatema Nurat Chowdhury	nurat.bba@dafoedvarsity.edu.bd	+001688228933	FBE	Real Estate	B.R.E.	Comment Not Found	[Business Mathematics, Managerial Accounting, Financial Management, Business Mathematics in Real Estate, Production & Operations Management]	Yellow	'Attendance': 78.33% 'SGPA': 86.72% 'Assignment': 3
TMM (180)												
FEngr (2191)												
FHSS (963)												
FSIT (3911)												

## DROPOUT GET DROPOUT STUDENT IN SmartEDU

In this page you will get overall information of all the faculty, department and student with the status of **Red**, **Yellow** and **Green**. You can expand the view.

The screenshot displays the 'Student Dropout' dashboard in SmartEDU. The navigation bar includes 'Dashboard', 'Get Dropout Student' (highlighted with a red box), 'Get Sentiment', 'Get Teacher Analysis', 'Custom Dashboard', and 'Teacher Evaluation'. The main content area shows a table with columns: Student Id, Teacher Id, Teacher Name, Teacher Email, Teacher Mobile, Facultyshortname, Department, Programshortname, Dropoutstatus, Mentors, Feedback, Course Need To Reta..., Dropoutstatus, and Dropout Cause. A filter menu is open over the table, showing options for Department, Programshortname, Facultyshortname, and Dropoutstatus, along with 'Add Custom Group' and 'Created by'.

Student Id	Teacher Id	Teacher Name	Teacher Email	Teacher Mobile	Facultyshortname	Department	Programshortname	Dropoutstatus	Mentors	Feedback	Course Need To Reta...	Dropoutstatus	Dropout Cause
FAHS (725)													
FBE (1280)													
FEngn (2191)													
B.Arch. (47)													
B.Sc. in CE (398)													
Green (266)													
Red (30)													
Yellow (102)													
B.Sc. in EEE (1121)													
B.Sc. in ETE (55)													
B.Sc. in TE (570)													
FHSS (965)													
F SIT (3911)													

## DROPOUT GET DROPOUT STUDENT IN SmartEDU

In this page you will get overall information of all the faculty, department and student with the status of **Red**, **Yellow** and **Green**. You can expand the view. You can also sort by yourself example given in the mentioned picture

Student Dropout Dashboard Get Dropout Student **Get Sentiment** Get Teacher Analysis Custom Dashboard Teacher Evaluation

Mr. Habib

Mentors Feedback

Search: [ ]

Filters Group By Favorites

1-80 / 5422

Student	Teacher	Meeting Topic	Meeting Remarks	Meeting Instruction	Feedback Sentiment
<input type="checkbox"/> 141-15-3296	710001892	Academic Discussion		Advised for registration	Neutral
<input type="checkbox"/> 161-15-7561	710001892	Academic Discussion		Advised and done registration	Neutral
<input type="checkbox"/> 172-15-10217	710001892	Academic Discussion		Motivated to concentrate on studies	Positive
<input type="checkbox"/> 172-15-10225	710001892	Academic Discussion	Weak in study	Should be more attentive towards study	Negative
<input type="checkbox"/> 172-15-10230	710001892	Academic Discussion		Advised and done registration	Neutral
<input type="checkbox"/> 172-15-10237	710001892	Academic Discussion		Advised to be more concentrated on study	Neutral
<input type="checkbox"/> 172-15-9619	710001892	Academic Discussion		Advised to concentrate more on study	Neutral
<input type="checkbox"/> 123-10-825	710001337	Result		She	Neutral
<input type="checkbox"/> 151-10-1099	710001337	Motivational Talk	* He has promised not to miss any class and other related tasks.	* Should attend the class regularly. * Should not miss any class test, assignment, and presentation. * Should maintain regular communication with course teachers. * Should work hard to improve the result.	Critical
<input type="checkbox"/> 151-10-1133	710001337	Class Monitoring	* He is found irregular in the class. However, he promises that he will be regular from now onwards.	* Should be regular in the class. * Should study regularly to improve the result. * Should maintain a good communication with all the course teachers. * Should not miss any quiz/ assignment/presentation of any courses.	Positive
<input type="checkbox"/> 151-10-1179	710001337	Class Monitoring	* In her routine, there is a clash between two classes of two different courses. It happens because she has taken some courses as the retake.	* Attendance should be regular. * All quizzes should be attended timely. * Should work hard to make a good score in the exams.	Positive
<input type="checkbox"/> 162-10-1229	710001337	Payment Due	Will pay	She was requested to pay her dues to sit for the final examinations.	Negative
<input type="checkbox"/> 162-10-1394	710001337	Payment Due	Will pay partially.	He was requested to pay her dues to sit for the final examinations.	Negative
<input type="checkbox"/> 162-10-1399	710001337	Academic Discussion	* He has promised to be regular in the study	* He has to be regular in the class. * He cannot miss any assignment/ Presentation/ Quiz * He will be monitored time to time.	Positive
<input type="checkbox"/> 163-10-1410	710001337	Motivational Talk	* She has promised to be regular in the class as well as the study	* To be regular in the class * To attend the quiz regularly * To maintain a regular communication with course teachers	Positive
<input type="checkbox"/> 163-10-1419	710001337	Attendance	* He remains totally absent from the class from the beginning of the semester * He did not participate in the midterm examinations. * He could not manage the payment to sit for the exam.	He was advised to continue his study in spite of having hurdles especially the financial one.	Critical
<input type="checkbox"/> 163-10-1420	710001337	Registration		He was instructed to be regular in the class and to get in touch with me.	Positive
<input type="checkbox"/> 163-10-1424	710001337	Academic Discussion	He is an above-average student but due to his irregularity, he feels less motivated in the class. I am writing to motivate him whenever I get the scope.	He was requested to be regular in the class.	Negative

# DROPOUT GET DROPOUT STUDENT IN SmartEDU

In this page you will get overall sentiment analysis of mentors comments information the student with the status of **sentiment**. You can expand the view.

The screenshot displays the 'Student Dropout' dashboard. The top navigation bar includes 'Dashboard', 'Get Dropout Student', 'Get Sentiment', 'Get Teacher Analysis', 'Custom Dashboard', and 'Teacher Evaluation'. The 'Get Sentiment' menu item is highlighted with a red box. Below the navigation bar, the 'Mentors Feedback' section is visible, featuring a table with columns for 'Student', 'Teacher', 'Meeting Topic', 'Meeting Instruction', and 'Feedback Sentiment'. The table lists various feedback categories such as 'Critical (451)', '181 (4)', '182 (42)', '183 (20)', '191 (38)', '192 (24)', '193 (13)', '201 (31)', '202 (144)', '203 (135)', 'Negative (566)', 'Neutral (3000)', and 'Positive (1305)'. A dropdown menu is open over the 'Feedback Sentiment' column, showing options for 'Feedback Sentiment', 'Semester', 'Add Custom Group', and 'Created by'. The 'Semester' option is selected and highlighted with a red box. The 'Apply' button is also visible at the bottom of the dropdown menu.

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Student Dropout Dashboard Get Dropout Student Get Sentiment **Get Teacher Analysis** Custom Dashboard Teacher Feedback

Mr. Habib

Mentors Feedback

Create Import

Search

Filters Group By Favorites

1-80 / 312973

TeacherId	StudentId	Coursename	Attendance	Assignment	Presentation	Quiz	Midtermexam	Finalexam	Grandtotal	Gradeobtained	Gradepoint	Dropoutcause	
<input type="checkbox"/>	71000022	141-15-3396	Physics I: Mechanics, Heat and Thermodynamics, Waves and Oscillations and Optics	4.00	0.00	0.00	0.00	0.00	4.00	I	0.00	Yellow	
<input type="checkbox"/>	71000023	141-15-3396	Basic Functional English and English Spoken	2.00	0.00	0.00	0.00	0.00	2.00	I	0.00	Yellow	
<input type="checkbox"/>	71000023	141-15-3396	Mathematics I: Differential and Integral Calculus	0.00	0.00	0.00	0.00	0.00	0.00	I	0.00	Yellow	
<input type="checkbox"/>	710000519	141-15-3396	Computer Fundamentals	1.00	0.00	0.00	0.00	0.00	1.00	I	0.00	Yellow	
<input type="checkbox"/>	750000094	141-15-3396	Physics I: Mechanics, Heat and Thermodynamics, Waves and Oscillations and Optics	3.71	0.00	0.00	0.00	5.00	11.00	F	20.00	Yellow	
<input type="checkbox"/>	710001974	141-15-3396	Mathematics I: Differential and Integral Calculus	2.67	3.00	5.50	11.67	14.50	32.00	A-	70.00	3.60	Yellow
<input type="checkbox"/>	710001970	141-15-3396	Computer Fundamentals	0.32	3.00	4.70	8.57	15.00	24.00	B-	56.00	2.75	Yellow
<input type="checkbox"/>	710001453	141-15-3396	Basic Functional English and English Spoken	1.46	0.00	0.00	9.33	14.00	27.00	C+	52.00	2.50	Yellow
<input type="checkbox"/>	710001523	141-15-3396	Writing and Comprehension	5.33	3.00	6.00	7.83	19.00	30.00	A-	72.00	3.50	Yellow
<input type="checkbox"/>	710001447	141-15-3396	Mathematics - II: Linear Algebra and Coordinate Geometry	4.26	0.00	5.50	5.33	19.00	20.00	B-	55.00	2.75	Yellow
<input type="checkbox"/>	710001459	141-15-3396	Physics-II Lab	8.18	0.00	0.00	0.00	0.00	0.00	B+	65.00	3.25	Yellow
<input type="checkbox"/>	710001263	141-15-3396	Physics II: Electricity, Magnetism and Modern Physics	2.10	4.50	6.50	13.00	16.50	21.50	B+	65.00	3.25	Yellow
<input type="checkbox"/>	710001267	141-15-3396	Problem Solving Lab	5.45	0.00	0.00	0.00	0.00	0.00	A+	81.00	4.00	Yellow
<input type="checkbox"/>	710001267	141-15-3396	Programming and Problem Solving	5.09	4.00	6.50	8.00	24.00	33.00	A+	81.00	4.00	Yellow
<input type="checkbox"/>	721500164	141-15-3396	Electrical Circuits Lab	9.00	0.00	0.00	0.00	0.00	0.00	A+	80.00	4.00	Yellow
<input type="checkbox"/>	710001701	141-15-3396	Data Structure Lab	4.44	0.00	0.00	0.00	0.00	0.00	F	22.00	0.00	Yellow
<input type="checkbox"/>	721500164	141-15-3396	Electrical Circuits	6.65	5.00	6.50	11.00	18.00	12.00	B	60.00	3.00	Yellow
<input type="checkbox"/>	750000110	141-15-3396	Ordinary and Partial Differential Equations	6.59	5.00	7.00	12.00	16.50	0.00	W	48.00	0.00	Yellow
<input type="checkbox"/>	710001701	141-15-3396	Data Structure	4.53	4.30	6.70	5.67	16.00	30.00	B+	68.00	3.25	Yellow
<input type="checkbox"/>	710002099	141-15-3396	Discrete Mathematics	4.77	4.00	7.20	12.00	14.00	25.00	B+	66.57	3.25	Yellow
<input type="checkbox"/>	710001707	141-15-3396	Digital Electronics	3.85	3.00	6.30	11.33	14.50	14.00	C+	53.00	2.50	Yellow
<input type="checkbox"/>	710001633	141-15-3396	Engineering Mathematics	6.67	3.00	5.50	9.67	5.00	15.00	C	45.00	2.25	Yellow
<input type="checkbox"/>	710002110	141-15-3396	Object Oriented Programming Lab	8.75	0.00	0.00	0.00	0.00	0.00	A-	70.00	3.50	Yellow
<input type="checkbox"/>	710002065	141-15-3396	Bangladesh Studies	2.80	2.00	4.50	2.33	15.50	27.00	B-	55.00	2.75	Yellow
<input type="checkbox"/>	710002110	141-15-3396	Object Oriented Programming	2.45	5.00	7.00	12.67	15.00	22.00	B+	65.00	3.25	Yellow
<input type="checkbox"/>	710002258	141-15-3396	Digital Electronics Lab	8.00	0.00	0.00	0.00	0.00	0.00	B-	58.00	2.75	Yellow
<input type="checkbox"/>	750000120	141-15-3396	Statistics and Probability	5.09	4.00	7.00	9.67	13.50	25.50	B+	65.00	3.25	Yellow
<input type="checkbox"/>	710001279	141-15-3396	Electronics Devices and Circuits	4.67	0.00	0.00	7.17	18.00	26.00	B-	56.00	2.75	Yellow
<input type="checkbox"/>	731500338	141-15-3396	Algorithms	3.00	4.00	6.50	6.67	13.00	33.00	B-	63.00	3.00	Yellow

# DROPOUT GET TEACHER ANALYSIS IN SmartEDU

In this page you will get course wise student and teacher with attendance, assignment, presentation, midterm exam, final exam, grand total, grade, grade point and dropout status. You can also sort by yourself example given in the mentioned picture

Student Dropout Dashboard: Teacher Evaluation

Teacher Evaluation

Search: [Search Bar]

Filters: [Filter Icon] | Group By: [Group By Icon] | Favorites: [Favorites Icon]

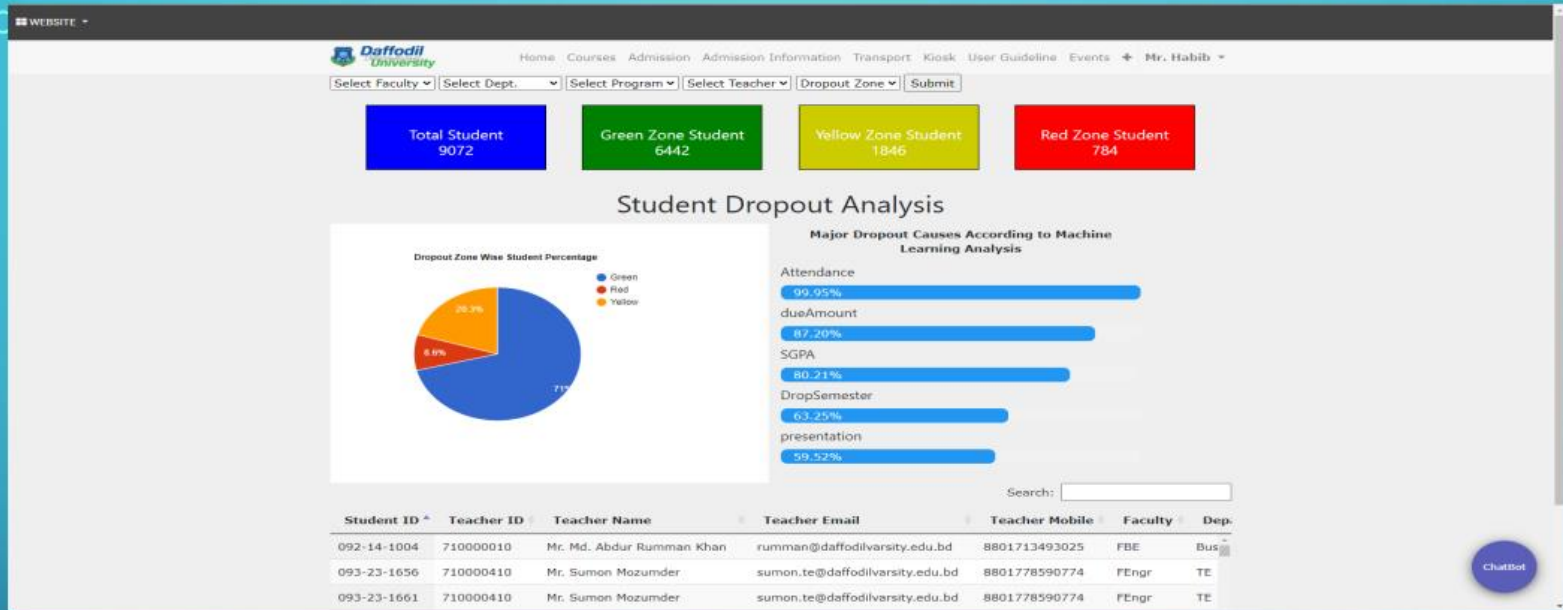
Columns:  Teacher ID, Student ID, Teacher Name, Email, [Dropdown], Designation, Employeetype, Dropoutstatus

Buttons: Create, Import, Add Custom Group, Created by, Apply

Teacher ID	Student ID	Teacher Name	Email		Designation	Employeetype	Dropoutstatus		
Architecture (47)									
+ 710001182 (33)									
- Green (8)									
<input type="checkbox"/>	710001182	143-42-122	Mr. Sheikh Mohammad Razwan	razwan.arch@daffodilvarsity.edu.bd	01675633199	Architecture	Sr. Lecturer	Academic	Green
<input type="checkbox"/>	710001182	181-42-212	Mr. Sheikh Mohammad Razwan	razwan.arch@daffodilvarsity.edu.bd	01675633199	Architecture	Sr. Lecturer	Academic	Green
<input type="checkbox"/>	710001182	191-42-001	Mr. Sheikh Mohammad Razwan	razwan.arch@daffodilvarsity.edu.bd	01675633199	Architecture	Sr. Lecturer	Academic	Green
<input type="checkbox"/>	710001182	191-42-003	Mr. Sheikh Mohammad Razwan	razwan.arch@daffodilvarsity.edu.bd	01675633199	Architecture	Sr. Lecturer	Academic	Green
<input type="checkbox"/>	710001182	191-42-233	Mr. Sheikh Mohammad Razwan	razwan.arch@daffodilvarsity.edu.bd	01675633199	Architecture	Sr. Lecturer	Academic	Green
<input type="checkbox"/>	710001182	191-42-234	Mr. Sheikh Mohammad Razwan	razwan.arch@daffodilvarsity.edu.bd	01675633199	Architecture	Sr. Lecturer	Academic	Green
<input type="checkbox"/>	710001182	191-42-236	Mr. Sheikh Mohammad Razwan	razwan.arch@daffodilvarsity.edu.bd	01675633199	Architecture	Sr. Lecturer	Academic	Green
<input type="checkbox"/>	710001182	191-42-238	Mr. Sheikh Mohammad Razwan	razwan.arch@daffodilvarsity.edu.bd	01675633199	Architecture	Sr. Lecturer	Academic	Green
+ Red (9)									
+ Yellow (16)									
+ 710001213 (14)									
Business Administration (613)									
Business Studies (15)									
Civil Engineering (388)									
Computer Science & Engineering (2222)									
Coordination Office (154)									
Electrical and Electronic Engineering (1176)									
English (534)									
Information System (4)									
Innovation and Entrepreneurship (10)									
Journalism & Mass Communication (98)									

# DROPOUT TEACHER EVALUATION IN SmartEDU

In this page you will get all the mentors and assigned student with dropout status. You can also sort by yourself example given in the mentioned picture



# DROPOUT CUSTOM DASHBOARD IN SmartEDU

In this page you will get overall information of all the faculty, department and student with the status of **Red**, **Yellow** and **Green**. You will also get all the mentors and assigned student with dropout status.

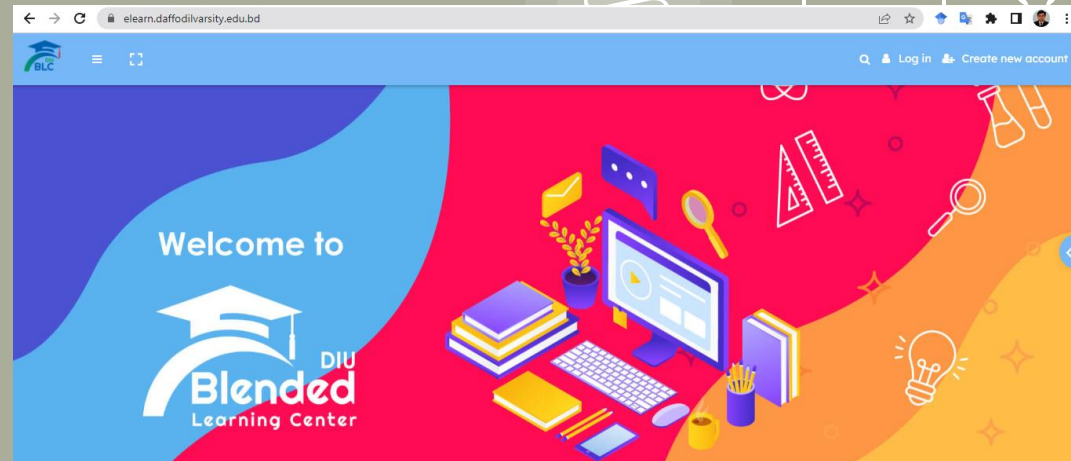
# IMPACT ANALYSIS

To ensure quality assurance in higher education institutes and to automate the process, DIU has taken initiative to automate its implementation process where QA cell loos into the evaluation and monitoring process for adjudging the real time development or progress. to design the quality assurance process management system on a service oriented architecture (SOA). SOA has been chosen for the transparently, scalability, and Integrity of this architecture.



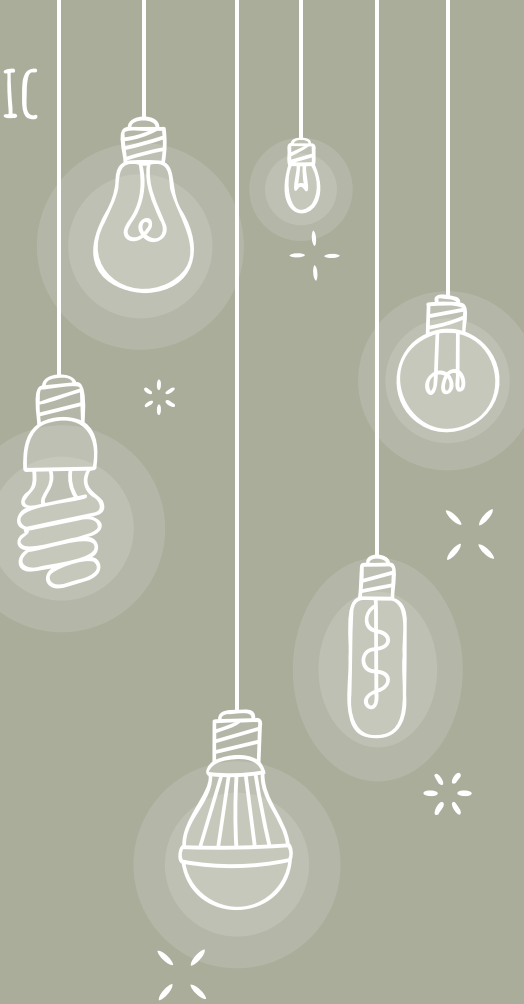
# USE OF THE LATEST DEVELOPMENTS IN TECHNOLOGY

In Daffodil International University, we introduced the Blended learning Center (BLC) platform in around 2016. Since then, our academic departments have been engaged to develop online course repositories. However, that time students were mostly engaged through the traditional face to face class system. When the pandemic started in Bangladesh and we faced the first lockdown, we took immediate steps to onboard all students and teachers to online education through the BLC platform.



# USE OF THE LATEST DEVELOPMENTS IN TECHNOLOGY- DURING PANDEMIC

On top of that the university offered 100s of webinars and circulated different digital guidelines to both teachers, students and administrators on how to take preparations at individual level to cope up with different initiatives and changes done by the university. Because of these initiatives, the majority of the teachers became well equipped to take classes online, could create and circulate online courses, contents and materials through the BLC platform for the students to study, engage the students through different interactive contents and discussion forums to further enhance their learning process, assess the students learning from creating online quizzes, assignments and online workshops.





One Student One Laptop

Knowledge and Technology across Borders



Since 2010, with a view to making every student of DIU dynamic and fit with global challenges, DIU distributed around **40,000 laptops** to students under “**One Student One Laptop**” project first time in Bangladesh



INTERNATIONAL  
**OPEN UNIVERSITY**



**Daffodil**  
International  
**University**



Collaboration



**coursera** **edX** **LinkedIn** LEARNING

**saylor.org**  
ACADEMY

**goedu**

**Smart  
Edu**



## DIU uses AI in decision making and employs at the operational tasks

Integration of AI helps all entities to reap the benefit. Artificial intelligence displayed by machines, in contrast with the natural intelligence (NI) displayed by humans and other animals. AI research is defined as the study of "intelligent agents". DIU employs AI in different operational areas.



## Few are some of the initiatives of DIU where smart AI system has been using:

DIU has introduced all the process of the university (administrative) is made digital through SmartEdu ERP (Partially AI based) developed by Daffodil Computers Limited which is a concern of Daffodil Family which even covers the digitization of different reports, digital communication, digital meetings, HR management, transport management, policy management etc. I believe all these initiatives can contribute to developing models for new formats, contents and delivery channels for other educational institutions and national policy makers.

The screenshot shows a Smart Board interface with a navigation menu at the top including Project, Meeting, Event, CRM, Timesheet, Helpdesk, Wiki, and User Guide. The main content area is titled "#Office\_IQAC" and contains a table of meeting items:

Date	Topic	Description	Duration
2021-10-05	IQAC official working	Different issues of IQAC have been followed up and instructed accordingly	1: 00
2021-10-05	paper and publication	Paper reading and finding the way of publishing paper	2: 00
2021-10-05	Semester class and exam related issues	Class test MCQ question preparations and BLC activity	1: 00
2021-10-05	BLC Teaching Performance	Follow up the matter of BLC performances and suggested to take action	0: 30
Total			8: 00

Below the table, there is a message from Professor Dr. A. K. M. Fazlul Haque: "Regards, Professor Dr. A. K. M. Fazlul Haque".

A second message from Mr. Nafees Intiaz Islam, dated a day ago, says "Hello," and includes a "Today's task update report:"

Date	Task	Description	Duration
2021-10-05	INQAAHE Funding Scheme and others	Few features were added at the proposal.	1: 30
2021-10-05	Student Dropout Project	Attended the meeting where AI team members were participated.	0: 30
2021-10-05	Preparing Documents for IQAC, DIU	Added my inputs as resources and reviewed existing components; recommended few points. Have submitted to Director, IQAC with my specific observations and prepared the guidelines for review.	3: 00
2021-10-05	ECL newsletter	Sector specific (Land Customs Station of Bangladesh) tasks	1: 12
Total			6: 12

The interface also shows a sidebar with "Inbox", "Starred", and "History" sections, and a "CHANNELS" list including "# Feedback / Suggestion", "# Help", "# Online Food Order\_01847140174", "@ Medical Support & Service", "# General", "# IQAC\_DIU for All Departments", and "# Office\_IQAC". A "DIRECT MESSAGES" section lists contacts like "DIU Bot", "Dr. Md. Jashim Uddin", "Md. Mahfuzur Rahman", "Mohammad Monir Hossain", "Mr. Kamanashis Kundu", "Ms. Jui Roy", and "Professor Dr. A. K. M. Fazlul Haque".

# THANKS!

**Any questions?**

You can find us at:

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+ [nafees-research@daffodilvarsity.edu.bd](mailto:nafees-research@daffodilvarsity.edu.bd)

