

# SOFTWARE ENGINEERING

## Farmer Subsidy System

### Class Modeling

#### GROUP 3.8

#### TEAM DETAILS

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❖ **Initial Nouns**

Sr. No.	Name	Accepted/Rejected	Type
1	seeds		Attribute
2	area		Attribute
3	fertilizers		Attribute
4	price		Attribute
5	location		Attribute
6	status		Attribute
7	scheme		Attribute
8	soil		Attribute
9	climate		Attribute
10	type		Attribute
11	eligibility		Attribute
12	category		Attribute
13	criteria		Attribute
14	income		Attribute
15	aadhar		Attribute
16	Account no.		Attribute
17	transaction		Attribute
18	quantity		Attribute
19	messages		Attribute
20	equipments		Attribute
21	seed	Rejected	Duplicate
22	weather	Rejected	Duplicate
23	land	Rejected	Duplicate
24	crop	Rejected	Duplicate
25	subsidies	Rejected	Duplicate
26	farmers	Rejected	Duplicate

27	crops	Rejected	Duplicate
28	credit	Rejected	Duplicate
29	rates	Rejected	Duplicate
30	schemes	Rejected	Duplicate
31	prices	Rejected	Duplicate
32	withdrawn	Rejected	Duplicate
33	machineries	Rejected	Duplicate
34	costs	Rejected	Duplicate
35	equipment	Rejected	Duplicate
36	amount	Rejected	Duplicate
37	fertilisers	Rejected	Duplicate
38	fertiliser	Rejected	Duplicate
39	farms	Rejected	Duplicate
40	seed	Rejected	Duplicate
41	loans	Rejected	Duplicate
42	locations	Rejected	Duplicate
43	system	Rejected	General
44	electricity	Rejected	General
45	users	Rejected	General
46	sector	Rejected	General
47	time	Rejected	General
48	irrigation	Rejected	General
49	loss	Rejected	General
50	information	Rejected	General
51	concerns	Rejected	General
52	tractors	Rejected	General
53	money	Rejected	General
54	funds	Rejected	General
55	person	Rejected	General

56	levels	Rejected	General
57	water	Rejected	General
58	agriculture	Rejected	General
59	solution	Rejected	General
60	sources	Rejected	General
61	problem	Rejected	General
62	tractor	Rejected	General
63	ownership	Rejected	General
64	facilities	Rejected	General
65	client	Rejected	General
66	finance	Rejected	General
67	incentives	Rejected	General
68	clients	Rejected	General
69	strategy	Rejected	General
70	support	Rejected	General
71	middlemen	Rejected	General
72	result	Rejected	General
73	base	Rejected	General
74	calamities	Rejected	General
75	integration	Rejected	General
76	growth	Rejected	General
77	taxation	Rejected	General
78	discount	Rejected	General
79	bears	Rejected	General
80	toll	Rejected	General
81	survey	Rejected	General
82	development	Rejected	General
83	event	Rejected	General
84	years	Rejected	General

85	plot	Rejected	General
86	factors	Rejected	General
87	consideration	Rejected	General
88	burden	Rejected	General
89	device	Rejected	General
90	machines	Rejected	General
91	benefits	Rejected	General
92	hand	Rejected	General
93	requirement	Rejected	General
94	issues	Rejected	General
95	audience	Rejected	General
96	difference	Rejected	General
97	profitability	Rejected	General
98	board	Rejected	General
99	productivity	Rejected	General
100	mechanisation	Rejected	General
101	rotation	Rejected	General
102	machinery	Rejected	General
103	definition	Rejected	General
104	weeders	Rejected	General
105	charges	Rejected	General
106	market	Rejected	General
107	software	Rejected	General
108	standpoint	Rejected	General
109	appropriation	Rejected	General
110	involvement	Rejected	General
111	segmentation	Rejected	General
112	idea	Rejected	General
113	services	Rejected	General

114	logistics	Rejected	General
115	share	Rejected	General
116	leaks	Rejected	General
117	premiums	Rejected	General
118	incumbency	Rejected	General
119	identification	Rejected	General
120	demand	Rejected	General
121	pond	Rejected	General
122	well	Rejected	General
123	customer	Rejected	General
124	supply	Rejected	General
125	manner	Rejected	General
126	aid	Rejected	General
127	aim	Rejected	General
128	results	Rejected	General
129	chemical	Rejected	General
130	order	Rejected	General
131	labor	Rejected	General
132	relationship	Rejected	General
133	interest	Rejected	General
134	end	Rejected	General
135	failure	Rejected	General
136	tillers	Rejected	General
137	source	Rejected	General
138	season	Rejected	General
139	lot	Rejected	General
140	fertility	Rejected	General
141	manufacturer	Rejected	General
142	issue	Rejected	General

143	claim	Rejected	General
144	insurances	Rejected	General
145	use	Rejected	General
146	purposes	Rejected	General
147	introduces	Rejected	General
148	side	Rejected	General
149	payment	Rejected	General
150	awareness	Rejected	General
151	distribution	Rejected	General
152	model	Rejected	General
153	non chemical	Rejected	General
154	urea	Rejected	General
155	pumpsets	Rejected	General
156	tool	Rejected	General
157	pests	Rejected	General
158	diseases	Rejected	General
159	frost	Rejected	General
160	rainfall	Rejected	General
161	transfer	Rejected	General
162	production	Rejected	Irrelevant
163	database	Rejected	Irrelevant
164	channelization	Rejected	Irrelevant
165	transparency	Rejected	Irrelevant
166	receipt		Method
167	notify		Method
168	suggestions		Method
169	form		Method
170	verification		Method
171	withdrawal		Method

172	farmer	Accepted	Potential Class
173	subsidy	Accepted	Potential Class
174	government	Accepted	Potential Class
175	documents	Accepted	Potential Class
176	notifications	Accepted	Potential Class
177	account	Accepted	Potential Class
178	humidity	Rejected	Vague
179	details	Rejected	Vague
180	power	Rejected	Vague
181	insurance	Rejected	Vague
182	scheme	Rejected	Vague
183	ones	Rejected	Vague
184	state	Rejected	Vague
185	way	Rejected	Vague
186	yields	Rejected	Vague
187	cashless	Rejected	Vague
188	groups	Rejected	Vague
189	bore-wells	Rejected	Vague
190	others	Rejected	Vague
191	policies	Rejected	Vague
192	quality	Rejected	Vague
193	kendra	Rejected	Vague
194	process	Rejected	Vague
195	reasons	Rejected	Vague
196	reference	Rejected	Vague
197	requirements	Rejected	Vague
198	resources	Rejected	Vague
199	damage	Rejected	Vague
200	input	Rejected	Vague



201	types	Rejected	Vague
202	profile	Rejected	Vague
203	deficit	Rejected	Vague
204	conditions	Rejected	Vague
205	plan	Rejected	Vague
206	national	Rejected	Vague

## ❖ Noun Analysis

### Potential Classes

Potential Classes	Reason	Attributes
Subsidy	This class consists of attributes that will contain the information related to various kinds of subsidies and the related schemes. Also, it will have functionalities such as allowing farmer to apply for a subsidy or track a subsidy request, displaying the subsidy information and the government employee can even update the information.	Seeds, fertilizers, price, status, type, equipments, quantity, scheme
Documents	This class consists of functionalities which helps the farmer upload the documents and the government employee can access all those documents and verify.	Status, type
Notifications	This class notifies farmer or government regarding	messages

	information that needs their attention.	
Farmer	This class consists of details of the farmer along with functionalities which will be beneficial for the farmer.	area, location, category, income, soil, climate
Government	This class consists of credentials of the government employee along with some necessary functionalities for the government employee.	
Account	This class contains the necessary account details and functions such as that for transaction from account.	Aadhaar, account no.

## **Attribute List**

### **1. Subsidy Class**

<b>Attribute</b>	<b>Reason</b>
Type	The type of subsidy like seeds,fertiliser,equipments etc.
Seeds	Kinds of seeds available at subsidized cost.
Fertiliser	Kinds of fertilizer available at subsidized cost.
Quantity	Quantity of seeds and fertilisers available for the subsidised cost.
Criteria	Criteria which the farmer must meet to avail the subsidy
Equipments	Kinds of equipments available at subsidized cost.
Price	Subsidised cost at which items are available.
Scheme	Name of various subsidy schemes

## 2. Documents Class

Attribute	Reason
Status	Shows whether the document has been verified or not
Type	Refers to the type of document uploaded.

## 3. Notifications Class

Attribute	Reason
message	Holds the type of notification

## 4. Farmer Class

Attribute	Reason
Land area	Land area based on which eligibility for subsidy can be decided.
Location	Location of the farm
Category	Category to which the farmer belongs small,marginal
Income	Income of the farmer based on which eligibility for subsidy can be decided.
Soil	Soil condition of the land
Climate	Climatic condition of that area in which farm is located

## 5. Government Class

## 6. Account Class

Attribute	Reason
Aadhar	One of the documents to be uploaded so that it can be linked with the bank account.
Account no.	Specifies the account number

## Methods List

### 1. Subsidy Class

Method	Reason
suggestion()	Based on the climatic and soil conditions the suitable crops are suggested.
withdrawal()	If a subsidy scheme is no more required its withdrawn

### 2. Documents Class

Method	Reason
verification()	Documents uploaded by the farmer are to be verified by the government
receipt()	After the subsidy has been sanctioned the details are combined and a receipt is generated

### 3. Notifications Class

Method	Reason
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notify()	Notifies the farmer if his subsidy has been approved or if there are any new schemes
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#### 4. Farmer Class

Method	Reason
form()	Farmer fills the application form with his details before applying for subsidy.
notify()	Farmer gets notified whenever there is a new subsidy that has been added or if his document has been approved or if his subsidy has been sanctioned

#### 5. Government Class

Method	Reason
Notify()	The government is notified whenever there is a new document that has been uploaded which is yet to be verified or if there is a subsidy request

#### 6. Account Class

Method	Reason
Transaction()	The government employee calls this method to refund the amount to the farmer

### ❖ Final Classes

S.No.	Class	Attribute	Method
1.	Subsidy	Seeds, fertilizers, price, status, type, equipments, quantity, scheme	withdrawal(), suggestion()

2.	Documents	Status, type	verification(), receipt()
3.	Notifications	messages	notify()
4.	Farmer	area, location, category, income, soil, climate	form(), notify()
5.	Government		notify()
6.	Account	Aadhaar, account no.	Transaction()

**Class Diagram :**

