## **Chatbot Survey**

Hi there! Hope you all are safe!

Please kindly read everything carefully.

We have developed chatbot that helps users to work with blockchain without any prior knowledge. Yes, you heard it right!! Blockchain is surely the next big thing. It has been integrated into various applications recently. One of the main reasons behind it is "Smart Contracts". Smart contracts are self-executed program codes that are hosted on a blockchain platform, to enforce agreements when conditions are met. However, writing smart contracts is challenging due to the lack of tools and experience in the field.

Hence, we have developed this chatbot, aiming to abridge this gap between users and blockchain. While working with the chatbot, you just have to answer the questions asked by your guide.

So, why have we asked you to come here? Since we have developed this research tool, we need to evaluate it. This is where we need your help. All you have to do is use the chatbot to generate smart contract and let us know of your experience via this survey. We have also asked you some questions to know about your background. Don't worry we will guide you through the whole process. We have also prepared tutorials for you which will help you understand the working of the chatbot as well as smart contracts.

Lastly, we would like to let you know that this survey can prove to be a huge stepping stone for blockchain technology. Therefore, we request you to provide us with constructive reviews which would help us to gain important insights and improve the framework.

Thank you for reading this far, Please proceed.

\* Required

## Personal Information

1. Your name \*

2.	Your email address *
Pı	rogramming Knowledge
3.	Are you familiar with programming? *
	Mark only one oval.
	Yes Skip to question 7
	No Skip to question 4
Pı	rogramming Requirement
4.	How many times have you encountered the requirement of programming while working? *
	Mark only one oval.
	Never
	Occasionally
	Sometimes
	Often

5.	What did you do when you encountered the need for programming? *										
	Check all that apply.										
	Never needed programming										
	Asked a friend for help who knew programming										
	Abandoned it Tried to learn the programming language but couldn't do it										
	Other:										
6.	How helpful do you think a tool that will generate code from your instructions in English prove be? *										
	Mark only one oval.										
	1 2 3 4 5 6 7										
	Won't help much Very helpful										
Cla	in to question 10										
SKI	ip to question 12										
Pı	rogramming Depth										
7.	How many programming languages have you worked with? *										
	Mark only one oval.										
	1										
	More than 1 but less than 5										
	More than 5 but less than 10										
	More than 10										

8.	Which programming languages do you use frequently for developing applications/systems? *
	Check all that apply.
	C
	C++
	Python
	Java Go
	JavaScript
	MATLAB
	Other:
9.	Generally, how long does it take for you to feel comfortable with a new programming languag *
	Mark only one oval.
	Less than 2 weeks
	2 - 4 weeks
	4 - 8 weeks
	More than 8 weeks
10.	How troublesome is learning a new programming language for you? *
	Mark only one oval.
	1 2 3 4 5 6 7
	A cakewalk Very troublesome

11.	How useful do you think a tool that can generate code from natural language prove to be?										
	lark only one oval.										
	1 2 3 4 5 6 7										
	Won't help much Very useful										
Skip	to question 12										
Blo	ckchain Knowledge										
12.	Are you familiar with the concepts of blockchain? *										
	Mark only one oval.										
	widik only one oval.										
	Yes Skip to question 13										
	No Skip to question 18										
Sm	art Contract Knowledge										
13.	In which of the fields of blockchain, do you think you have in-depth knowledge? *										
	Mark only one oval.										
	I possess in-depth knowledge only in cryptocurrency Skip to question 18										
	I possess in-depth knowledge only in smart contracts  Skip to question 14										
	I possess in-depth knowledge in smart contracts and other fields related to blockchain (like cryptocurrency, security, etc)  Skip to question 14										
	Other:										

Smart Contract Depth

14.	In how many languages can you write smart contracts? *
	Mark only one oval.
	1 2 3 4 5 More than 5
15.	Which tools/languages do you normally use to develop smart contracts? *
	Check all that apply.
	Solidity Hyperledger Fabric Hyperledger Composer Microsoft Azure Truffle Ganache Other:
16.	What are the problems that you have faced while writing smart contracts? *
	Check all that apply.
	Too many errors
	Completely new syntax
	Lack of community support  Other:

17.		How important do you think a tool that can generate smart contract code from natural language prove to be? *													
	Mark only	one ova	1.												
			1	2	3	4	5	6	7						
	Isn't nec	essary								Ver	y impo	rtant			
Skip	to questio	n 18													
Мо	odel-Drive	en Engir	neering	g Knov	vledge	!									
					_										
18.	Have you heard of Model-Driven Engineering? *														
	Mark only one oval.														
	Yes														
	O No	)													
		Now, yo	ou have	to test u	se the cl	natbot. F	Please rea	nd the in	structior	ıs care	efully.				
		  What yo	ou have	to do?											
		Scroll to	o the bo	ttom in t	he webs	site.									
	1) Go through the "Use Case" once.														
		2) Try g	eneratir	ng the sr	nart con	tract in t	he "Test	Case"							
						u nave c	ompleted	ı II.							
				or Linux l		:•مالم	folds:-								
				tall.sh" fil					A C1	. •			L	1	
		2) Uper	ı termin	aı and ty	pe - "suc	io chmo	d +x ./ins	ταιι.sh".	Atter this	S IS CO	mpiete	a, run t	ne com	mand -	

	"./install.sh".
	The installation process is done.
Use the chatbot	Video Tutorial
	We will strongly encourage you to watch the complete video tutorial. This will help you to understand the working of smart contracts and also, how to use the chatbot to generate smart contracts. (If you are bored, run it with 2x speed:D)
	Note: If you have issue with the chatbot, kindly refer to the video and follow the syntax used there.
	1) Use the "run.sh" file in installation folder
	install.sh and run.sh must be in the same directory
	2) Open terminal and type - "sudo chmod +x ./run.sh". After this is completed, run the command - "./run.sh".
	3) Open a web browser and go to - localhost:5000/admin
	Using the chatbot
	1) There are concepts and instructions given in the website. We will encourage you to go through it. If you have watched the video, many concepts and instructions have been covered.
	2) Please try to be elaborate.

## **Chatbot Survey**

19. Were you able to generate the smart contract given in the test case								case? *			
	Mark only one oval.										
	Yes										
	No										
20.	The interaction w	ith the	e chatb	ot was	clear a	and un	derstar	ndable	*		
	Mark only one oval.										
	,										
		1	2	3	4	5	6	7			
	Strongly disagree								Strongly agree		
0.1											
21.	I have the resour	ces ne	cessar	y to us	e the c	natbot	^				
	Mark only one oval.										
		1	2	3	4	5	6	7			
	Strongly disagree								Strongly agree		
22.	The chatbot is co	mpati	ble wit	h othei	platfo	rms I u	se *				
	Mark only one oval.										
		1	2	3	4	5	6	7			
	Strongly disagree								Strongly agree		

How many times	s did y	ou have	e to re	ter to t	ne tuto	rial wh	ile inte	eracting	with the chatb	ot?
Mark only one ov	val.									
Once										
More than once but less than five times										
More than f	īve time	es but le	ess thar	າ ten tin	nes					
More than t	en time	:S								
How helpful was	s the vi	deo tu	torial?	*						
Mark only one ova	Ι.									
	1	2	3	4	5	6	7			
Didn't help much								Very he	——— elpful	
What do you ha	ve to s	ay abo	ut the	amour	nt of inf	ormati	on tha	t had to	be typed for g	ene
the code? *										
Mark only one ova	1.									
	1	2	3	4	5					
			.)		J					
	1			•				_		

26.	How many times did the chatbot respond in the wrong way? *									
	Mark only one oval.									
	Once									
	More than once but less than five times									
	More than five times but less than ten times									
	More than ten times									
27.	How would you rate the chatbot in terms of the interest instilled by the chatbot? *									
	Mark only one oval.									
	mark only one oval.									
	1 2 3 4 5 6 7									
	Very interesting Very boring									
28.	What were the reasons behind the chat being boring? *									
	Check all that apply.									
	I didn't find chatting with the bot boring									
	I had to type a lot									
	<ul><li>I had to type the same things multiple times</li><li>I faced many errors while interacting with the chatbot</li></ul>									
	I couldn't understand what I was doing									
	Other:									

29	How usef	ul do voi	ı think the	chatbot is?	*

Mark only one oval.

	1	2	3	4	5	6	7	
Useless								Very useful

- 30. How good was the chatbot in giving some clarity about the working of smart contracts? \*

  Mark only one oval.
  - I already knew about smart contracts before
  - I didn't know anything about smart contracts and the chatbot gave a a lot of clarity about smart contract
  - I didn't know anything about smart contracts and the chatbot gave only some clarity about smart contract
  - I didn't know anything about smart contracts and I can't get a hang of it even after using the chatbo
- 31. How likely is it that you are going to use the chatbot in the future? \*

Mark only one oval.

32.	On a scale of 10, how good was your overall experience with the chatbot? *												
	Mark only one oval.												
		1	2	3	4	5	6	7	8	9	10		
	Very bad											Very good	
33.	Anything	else th	nat you	would	l like to	comm	ent ab	out you	ur expe	erience	with th	ne chatbot	
34. Any suggestions to improve the chatbot													

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