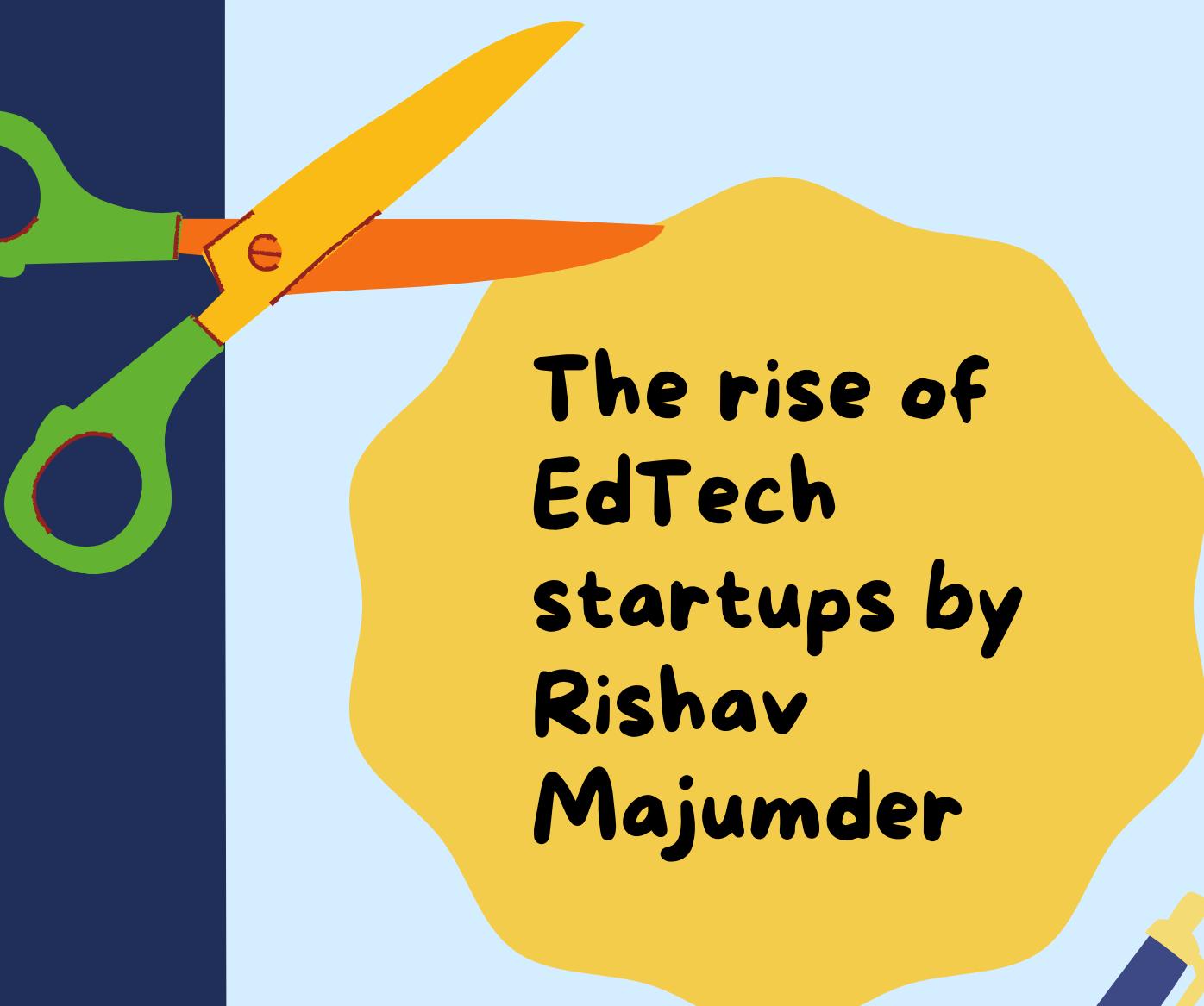


TINKER TIMESTM

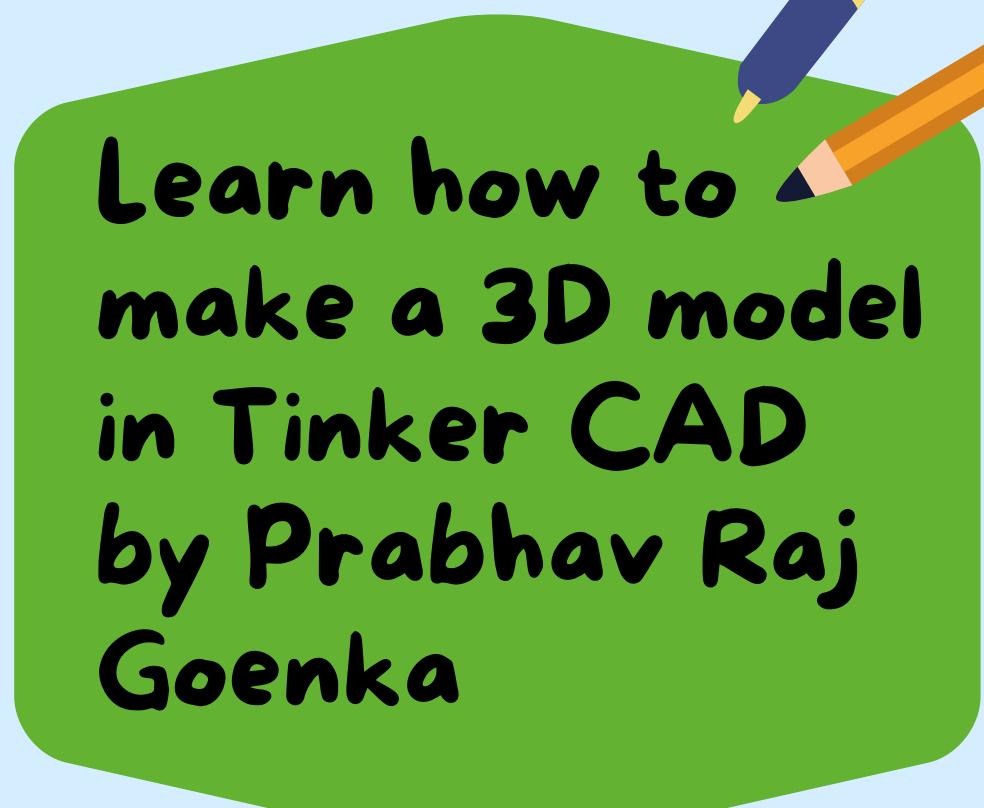
DECEMBER 2021 EDITION



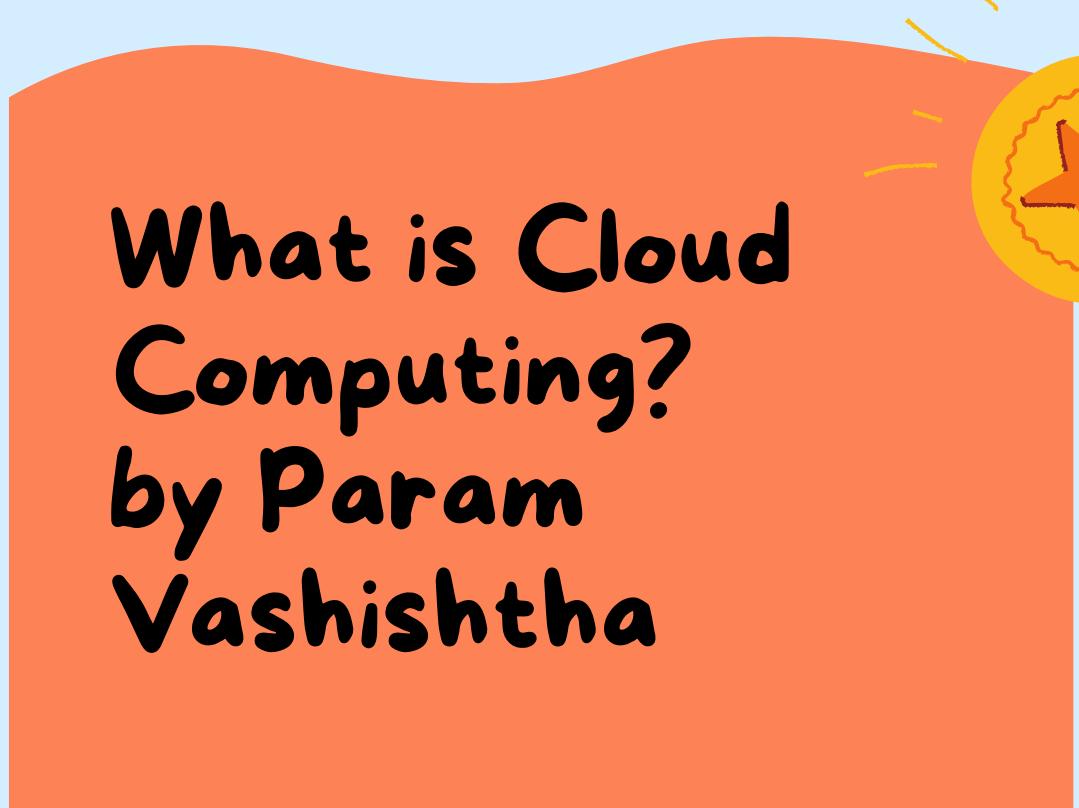
The rise of
EdTech
startups by
Rishav
Majumder



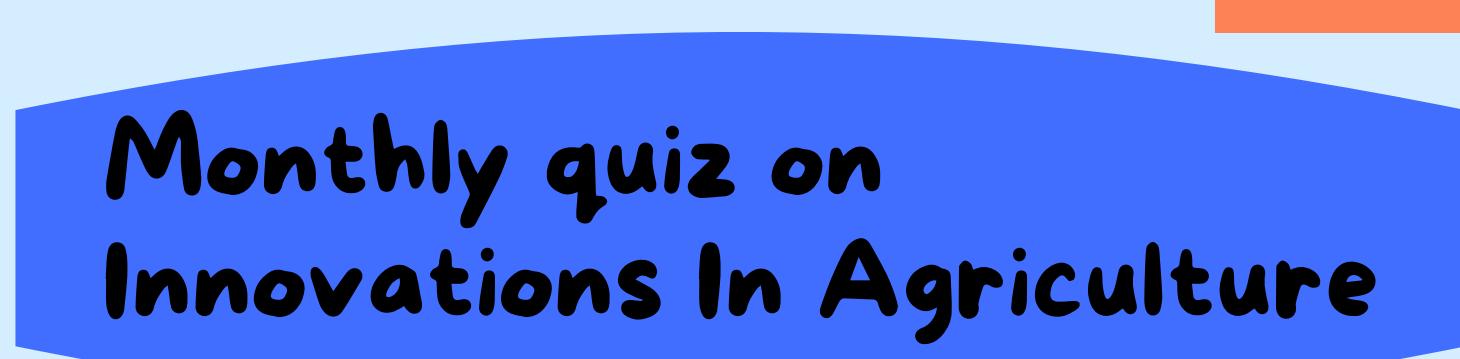
Technology In
Agricultural
Field by Sanyam
Surana



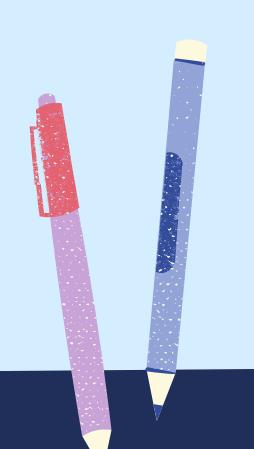
Learn how to
make a 3D model
in Tinker CAD
by Prabhav Raj
Goenka



What is Cloud
Computing?
by Param
Vashishtha



Monthly quiz on
Innovations In Agriculture



Happenings @ SSA

Once again, the school reopened for the Srians post-Diwali in the mid of November, after the Supreme Court has passed the order of reopening of schools. The school ensured that the proper Covid protocols are maintained by students by making the wearing of a mask, face shield and carrying a hand sanitiser as a mandate. Maintaining social distancing is ensured by arranging desks 2 meters apart and conducting the classes in a "Hybrid Mode" (online + offline simultaneously) with half of the population.

However, even amidst everything, Tinkering never paused. The students of different ages and grade categories participated in the National Coding Olympiad 2021 organized by Codingal. According to the grade, the project topics have been specified and students have started building their project models.



The rise of edtech startups

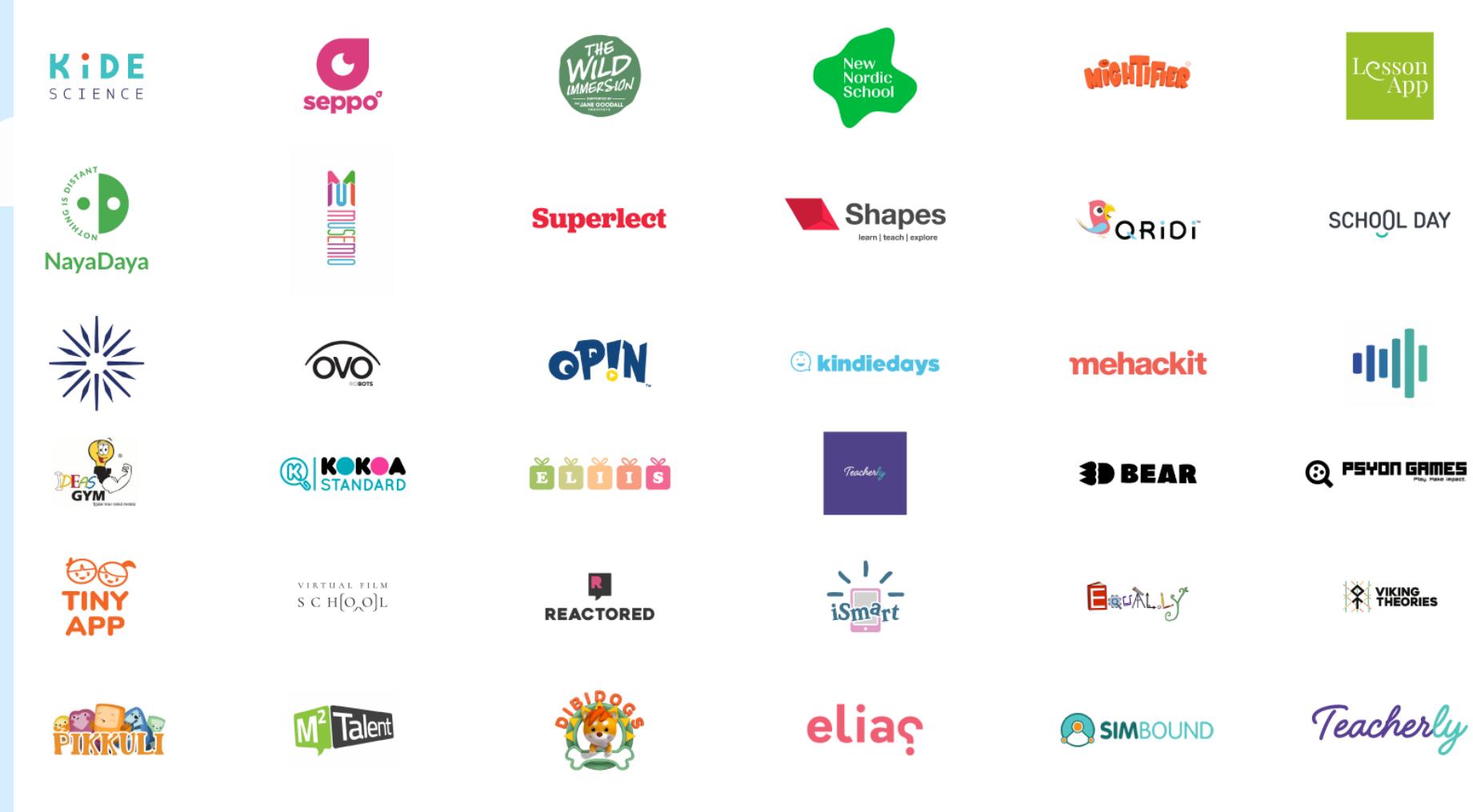


RISHAV MAJUMDER
SRI SRI ACADEMY

Technology is the building block of a developed nation. India is in a developing stage. We are still doing various experiments related to different fields of technologies. Our government is helping many startups related to Artificial Intelligence, Blockchain Technology, Machine Learning, etc.

Nowadays, technology has become very important in our education system. A few years ago, the idea of education with the help of technology was impossible, it had a lot of complications, and nobody wanted to trust that idea. In our country, we see education as a thing that gets destroyed by technology. But a group of people in our country opposed this ideology and developed an EdTech startup.

Nobody wanted their children to get involved in this, but a few visionary people got their children enrolled on this startup. This startup, which just started a few years ago, is now one of the famous EdTech startups in the whole world. This EdTech is now buying educational institutions which are quite old and highly experienced in the sector of education. Today we have many EdTech startups in our country. They are still in an evolving phase, but one day they will become one of the biggest players in the field of EdTech.



In many schools nowadays, we have robotics labs that are making students more acquainted with futuristic technologies and innovations.

In our school (Sri Sri Academy, Kolkata), we have a lab known as Atal Tinkering Lab, where we do innovations related to various kinds of technologies. I would like to thank my school and Rabvik Innovations for allowing me to explore the vast and mysterious world of technology.

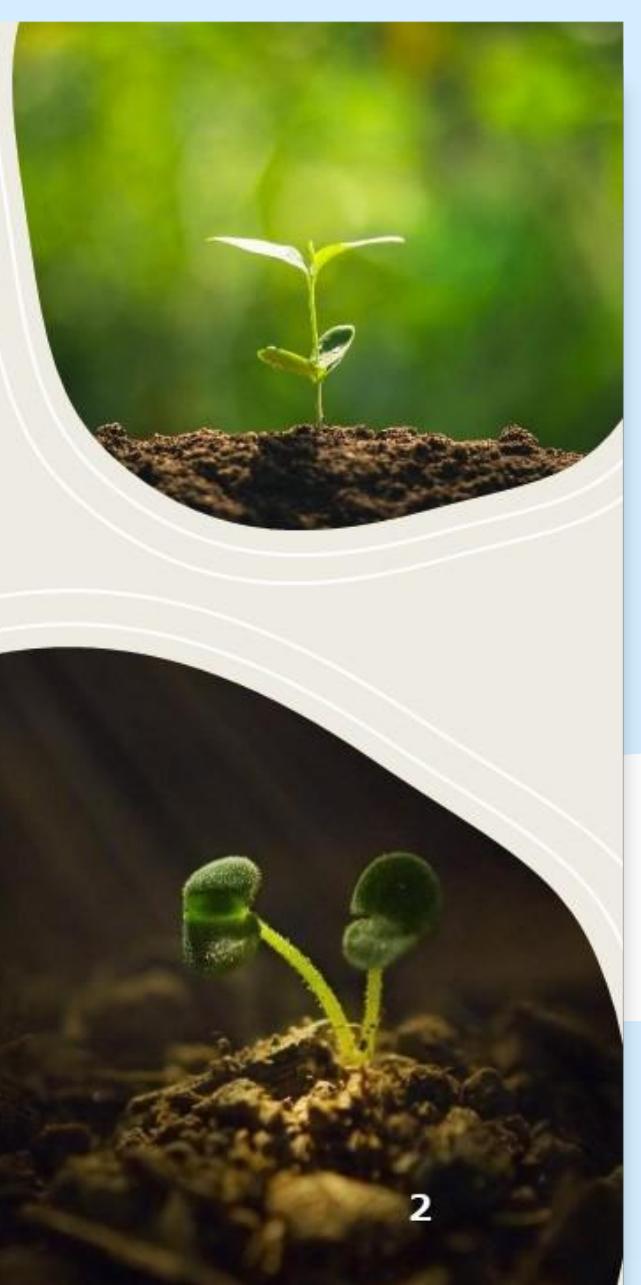
Technology In Agricultural Field

SANYAM SURANA, 8A



Problem which will be solved from Drone Technology

- Planning seed planting is very slow.
- Planting costs is very high.
- Crop spraying speed is slow.
- Crop Monitoring
- Irrigation
- Health Assessment



2

About Drones for agricultural sector



Weight
1,5kg

Wingspan
1,2m

Operability
Water resistant, operational under any weather conditions

Coverage capacity
One flight can cover approx. 12km² in 50min

How it works?



Capture of high resolution images



View of Data in real time



Data is processed in the cloud & translated into useful information



Maps providing different type of information from the field eg. Soil quality, plots size, plant health

3



Benefits of Drone Technology

- ✓ Optimize Inputs
- ✓ Reacts faster to threats
- ✓ Saves time crop scouting
- ✓ Improve Variable Rates Application
- ✓ Estimate Yield
- ✓ Can be used in any weather condition
- ✓ Collects many information's such as plant Counting, plant height, vegetation indices, water needs

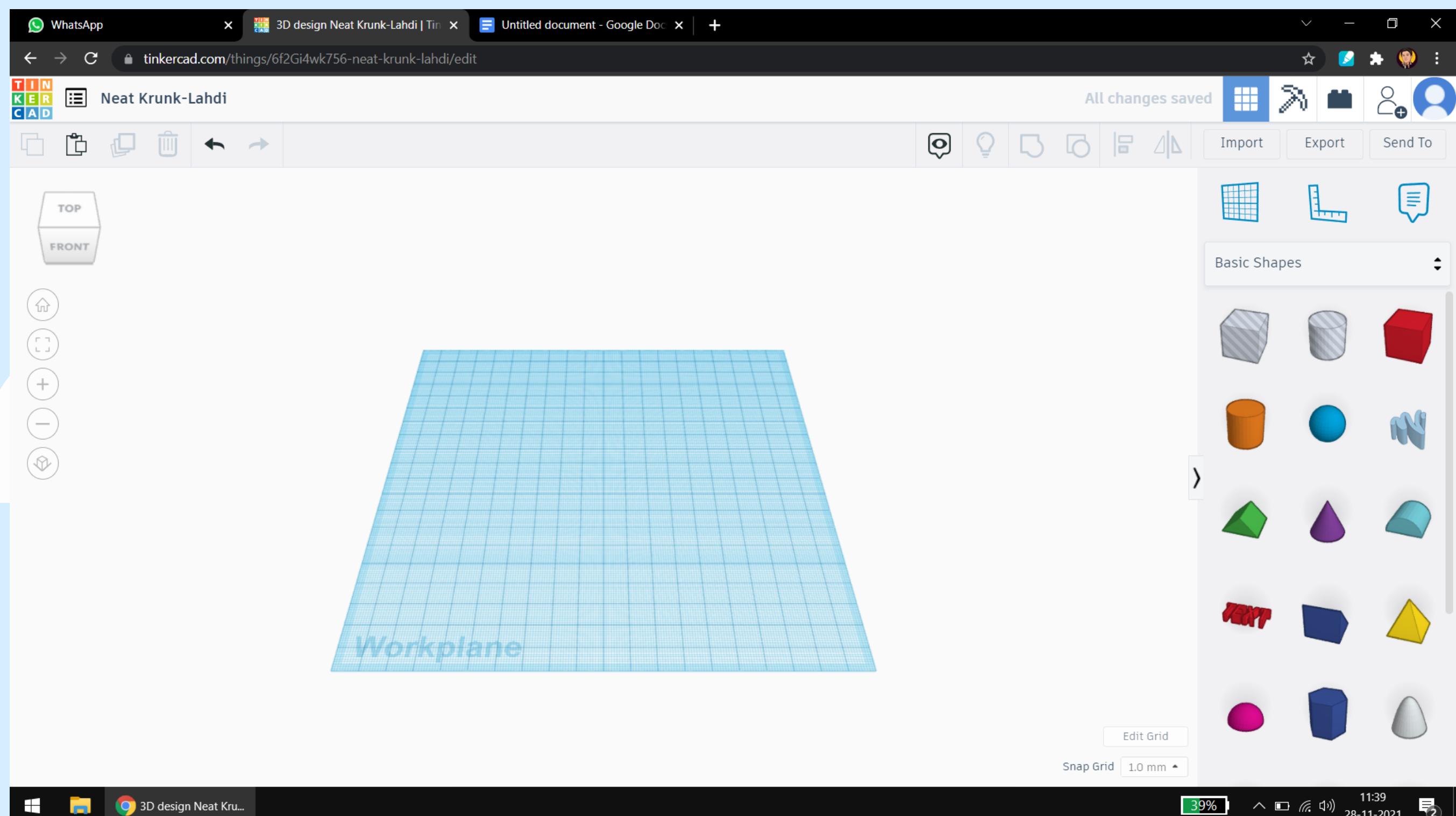
4

Let's learn how to make a 3D model in Tinker CAD

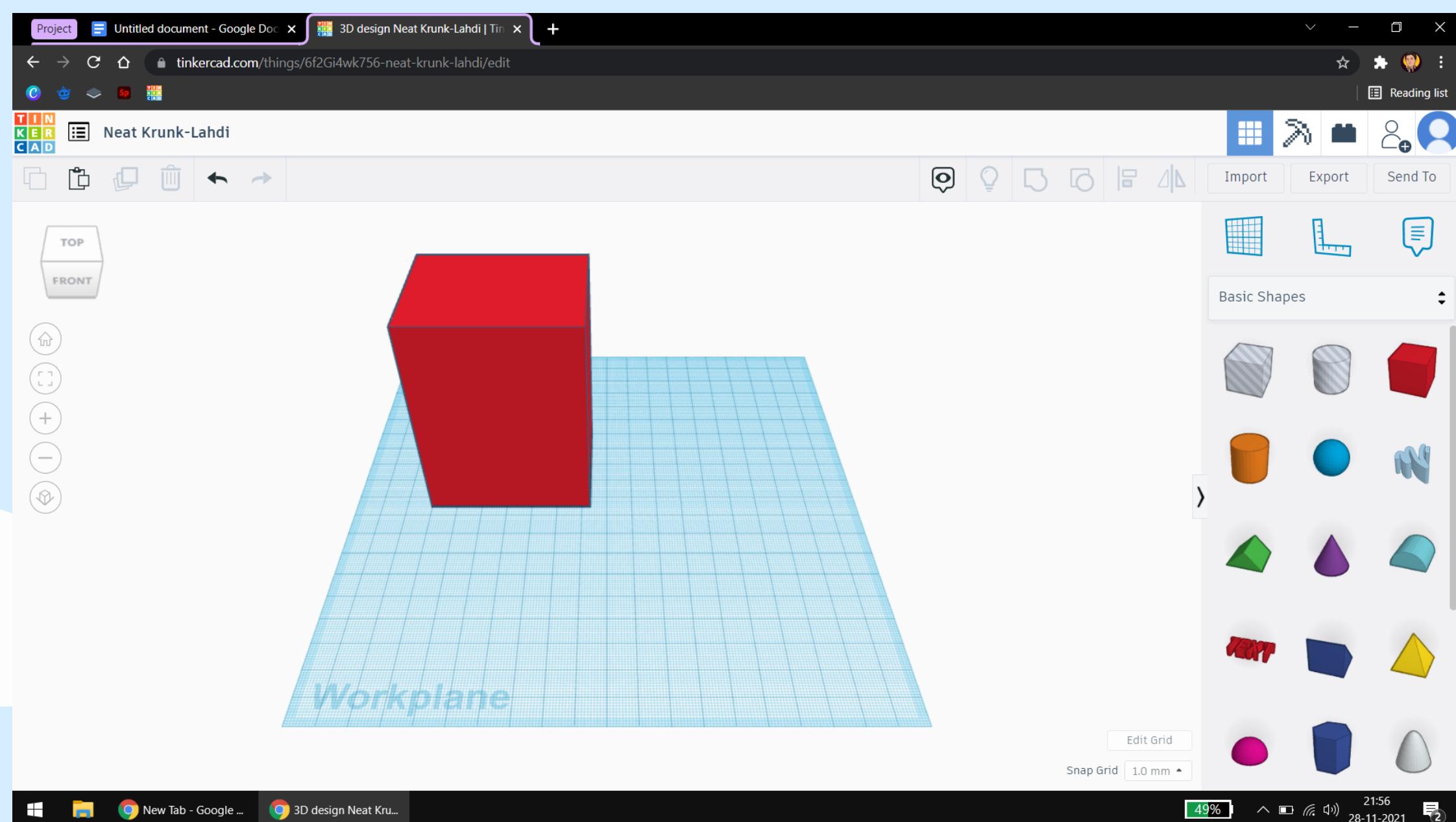
PRABHAV RAJ GOENKA, 7E

Aim: To make a mini sprayer 3d model in Tinker CAD

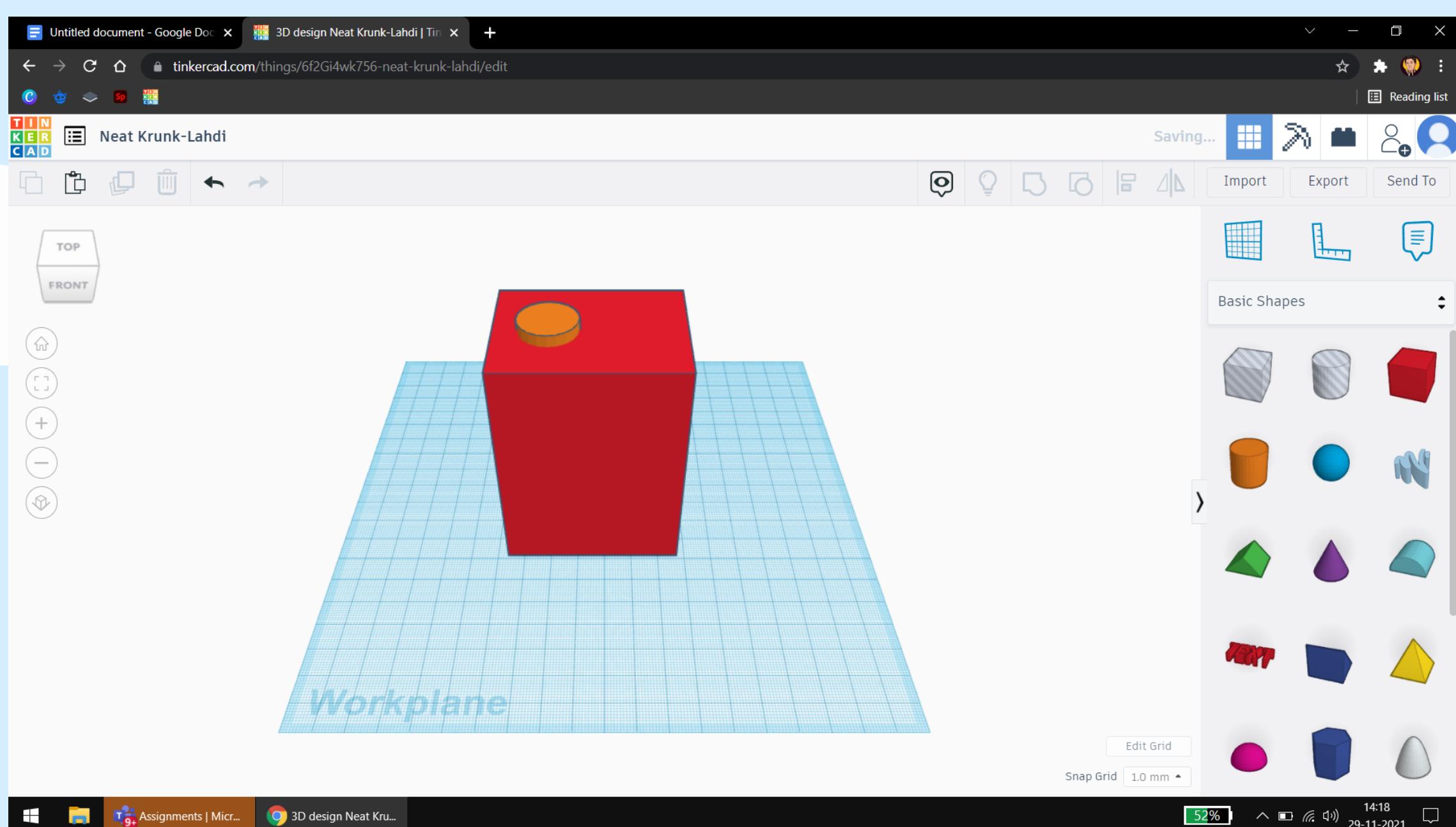
Step I: Make a new design



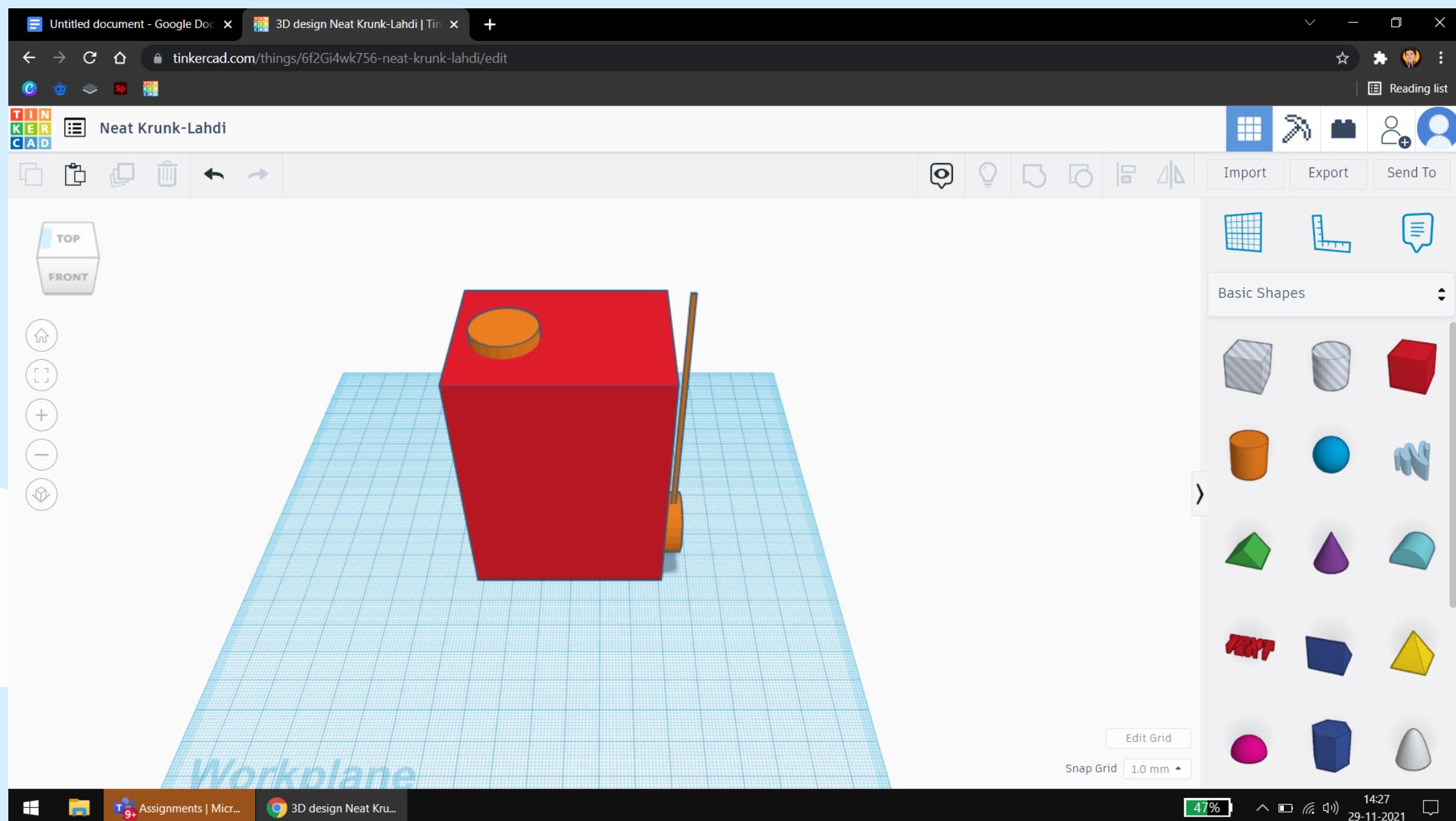
Step 2: Drag and drop a cube in the workspace.



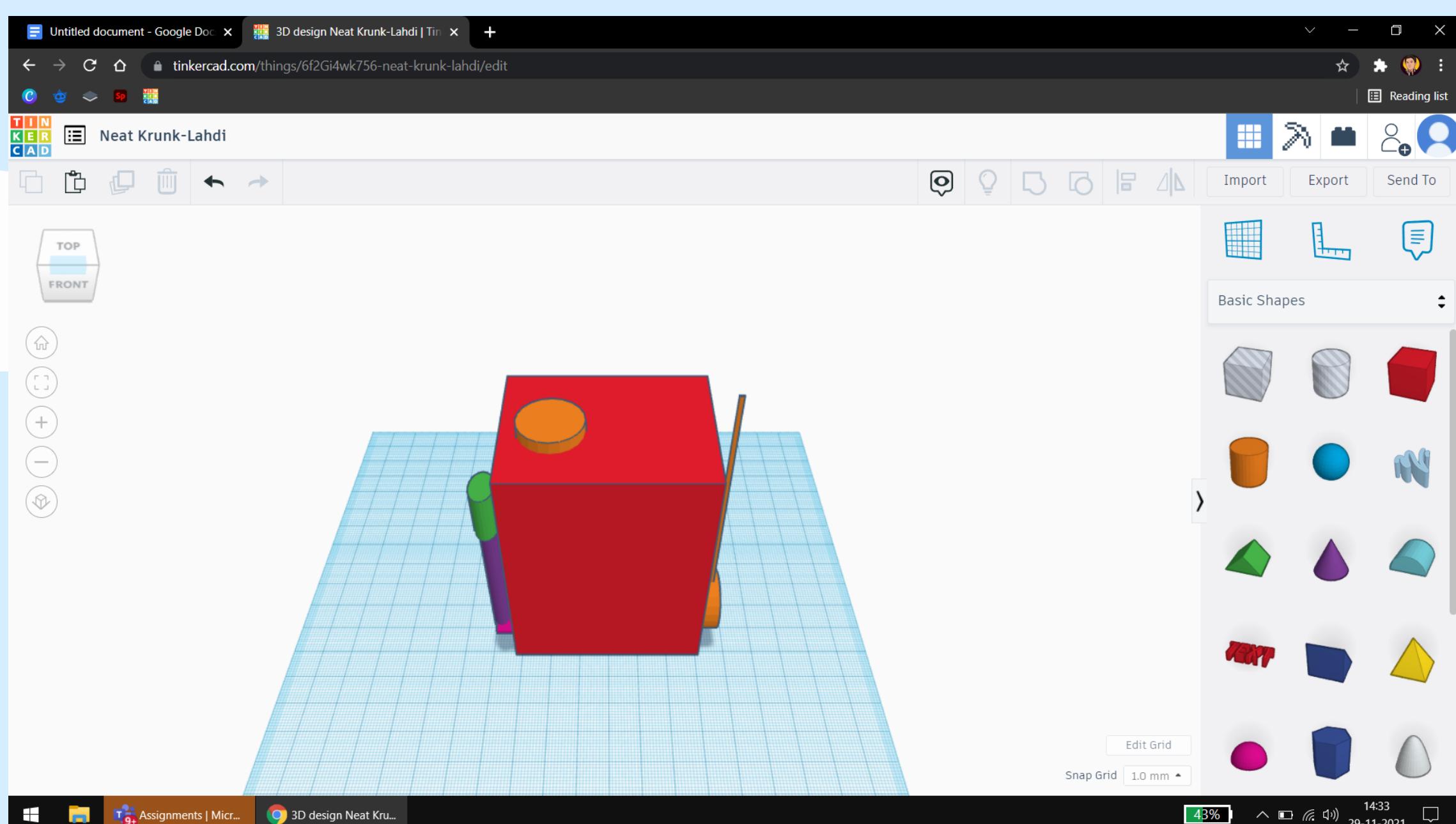
Step 3: Drag, drop and place a cylinder to make a lid for the container



Step 4: Drag and drop 2 cylinders to make the sprayer.



Step 5: The final step to make the pump. Drag and drop 3 cylinders to make the pump. Place them as shown in the figure.



What is Cloud Computing?

Cloud Computing is an on-demand service over the Internet. It enables users to access their files on different devices. Many big clouds access data over different locations called Data centres.

Now, let's try to understand this concept by real-life example. Suppose you want to store the data of 10 of your employees, but your computer is not capable of storing it. Now, what you will do?

You decide to buy ten different computers to store it costing you over 10,00,000. A few months later for some reason, five employees leave the organisation.

Then, there is a big loss for you about 5 lakhs. So, to prevent these problems for startups, a cloud computing system is established where these startups can store their data not only on a particular computer but over the Internet.

Even when you use Gmail, Google Drive, Google Photos, Microsoft One Drive, Netflix, or Amazon Prime, it means you are connected with Cloud Computing. But now, the question arises that how can we use it as a simple user? Let's find out in the next section.

How WE USE CLOUD COMPUTING SYSTEM IN DAILY LIFE?

Apps like Google Drive, Google Photos, One drive, Netflix, amazon use a cloud computing system. These are not used for their companies but also for their users. Even many of you don't know that we use cloud computing or how do we use it?

Let's understand this with the example of Netflix. Whenever you see any movie on Netflix, you don't need to download their movies. You can watch their movies over the internet. You don't need a big device, you just need good internet to watch its movie on its website. This same thing happened with other video streaming platforms.



Even, if you use file-sharing platforms like Google Drive, you don't need to download a file. You just save these files on this platform without downloading them and can share them on any device without affecting your storage.

Now, if you use Gmail, you use cloud computing. Because Gmail uses a mail cloud computing system. This enables you to share your mail over the internet without even affecting your storage of PC. Whatever you share through Gmail, does not affect your storage because it saves your data over the Internet.

HOW DID CLOUD COMPUTING HELP A DEVELOPER FOR STARTING START-UP?

If you are a developer and want to take benefit from this new age of modern technology, then how can you take this benefit? Before knowing about that how can you take the benefit, you have to know about the what are benefits for developers in cloud computing.

1. Scalability

One of the main benefits of cloud computing is scalability. With traditional server hosting, users need to determine the exact hardware that each node of the system would run a particular web application or server. With cloud systems, users can now scale any part of an application more quickly and easily.

2. Cost

Another benefit of cloud computing systems is that the cost is much less. Companies and users will be able to save money on computing costs as they will not need any upfront investment and will be able to pay as they go to get the resources they need.

3. Multiple Service Models

Cloud provides developers and companies with different options to set up their environment which will then meet the unique needs of users. These service models include Platform as a Service and Infrastructure as a Service. This has been made possible thanks to Item management software.

Now, questions arise that how will you get access to cloud computing services by big organizations? So, just simply goes to the website of cloud computing service providers and just register yourself and pay them for it.

Many organizations like Microsoft Azure, Google Cloud gives a one-month free service for startups and after that, they can pay as per as they use according to the plan given by them.

CAREER SCOPES IN CLOUD COMPUTING

As to run a startup with the help of this modern age technology is being discussed above. But if you want to be a Cloud Computing engineer, then?

Yes, you could be a cloud engineer as the data in cloud computing is also controlled or managed by someone in these companies and that are Cloud Computers Engineers.

They just have to know about the Java, Python and Ruby languages. They don't just type simple or old codes of any of these languages. They have to take a different course for becoming a cloud computing engineer.

I will recommend you to do a course about Cloud Computing. One of the best courses with a certificate is provided by Google which is about Cloud Clouding. You have to do this to become a great Cloud Computing Engineer.



CONCLUSION

This is all about Cloud Computing that I can discuss with you as a beginner. Well, there are some types of cloud computing systems but to be discussed, we have first understood all things that are given above.

After learning this skill and learning about it more, you have to also find out the new Business opportunities after mastery of this technology like the Freelance model, doing a startup, and many other things.

QUIZ TIME

Scan the QR code to take quiz



About Us

Rabvik Innovations aims to train and prepare the next generation of robotics, scientists, and engineers innovative enough to push the envelope and be creative enough to achieve the impossible. Rabvik Labs prepare the students for a toe-dip in the pool which will become an ocean in the pool which will become an ocean in a few years and will also allow them to get real-life experience in the world of robotics, automation, AI and IoT.

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