Semester Long Internship Report

On

Creating Spoken Tutorial for Blender 3.6.0

Submitted by

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Acknowledgment

I, at this moment, take the opportunity to express my profound gratitude towards all those who were instrumental in the successful completion of my Internship at FOSSEE Team, IIT BOMBAY.

I would like to whole-heartedly thank my internship guide, Ms. Rashmi Patankar, for her constant guidance and motivation.

In addition, I would like to thank all the people at FOSSEE Team, IIT BOMBAY, who have helped me develop as a professional. It would not have been possible without the kind support and help of many individuals and organizations. I want to extend my sincere thanks to all of them.

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Chapter 1

Introduction

The Spoken Tutorial Project is about teaching and learning a particular FOSS (Free and Open Source Software) like Linux, Scilab, LaTeX, PHP MySQL, Java, C/C++, LibreOffice etc. via an easy Video tool. It is a multi-award winning educational content portal. Here one can learn various Free and Open Source Software all by oneself. It's self-paced, multi-lingual courses ensure that anybody with a computer and a desire for learning, can learn from any place, at any time and in a language of their choice. Students, Staff Teachers from Schools, Colleges, Universities, Poly-technics, ITIs, Skill centers, NGOs all can avail the training at very low cost.

The method is Active learning on Computer systems and very suited for Remote/Distance Education. Teachers students can master the software courses on their own, in their own campus and at their own time. Once one gets started any student or faculty can master the Software Course and also get Certificates. UG, PG or Research scholar students and even teachers of Science, IT, Engineering, Commerce, Management, MCA disciplines can learn any of the FOSS.

Today, SMEs and Govt. departments are moving to Open Source Software like Linux OS. Students with this knowledge will have an edge in the job market. They can also become entrepreneurs and use Open Source Software in their businesses, and save money vs., if they were using commercial software.

IIT Bombay Spoken Tutorials now offers Partnership opportunity to Computer Institutes/Centres to give their learners a range of 75+ relevant Basic and Specialized Courses. These cover General IT skills, Programming, Web development, Multimedia, Mathematics, Sciences, Industrial process simulation packages and many more. Institutes can train unlimited students in many courses along with Certificates.

IIT Bombay is leading the effort to popularise Blender in India and 3D modelling is one of the best features of Blender. This effort is part of the Free and Open source Software for Science and Engineering Education (FOSSEE) project, supported by the National Mission on Education through ICT of the Ministry of Education.

IIT Bombay is using Spoken Tutorials (http://spoken-tutorial.org) to create learning material for FOSS. This is the main page for the organisation of the scripts required for Blender spoken tutorials. We invite the Blender user community to

participate in this activity.

Overall coordination for the series was done by Rashmi Patankar from FOSSEE project, IIT Bombay. Khushalsingh Rajput from FOSSEE project, IIT Bombay, was the domain reviewer for the tutorials.

Chapter 2

Tutorial on Blender 3.6.0

Blender is a multifaceted and free-to-use 3D modeling software that finds applications across various creative fields. Learning Blender can be highly beneficial due to its wide range of uses. In the realm of graphic design and animation, Blender enables artists to craft stunning visuals, whether it's for video games, animated movies, or architectural visualizations.It's also a powerful tool for 3D printing enthusiasts, allowing them to design and refine intricate objects with precision.

During this internship, we explored Blender tutorials on the Spoken tutorial site. These tutorials explain the basics of Blender software. However, we noticed that there have been many new versions of Blender released, and the way it works has changed a lot. Because of this, the FOSSEE team decided that we should revamp the old tutorials. Hence, I started working towards revamping the old Blender series.

In these tutorial we have lectures explaining the basics of the newest version of Blender that is Blender 3.6.1.

2.1   Moving in 3D space

In this tutorial we have learned:

- About different functions of Blender

- To Zoom an object

- About of Navigation Gizmo

- Use of Zoom in/out icon

- To Pan an object

- Use of Hand icon

- Use of Default Factory Reset

- To Rotate an object

- About Turntable Rotation

- About Trackable Rotation

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2.2 The Blender interface

In this tutorial we have learned:

- About 3D Viewport Editor

- Use of Toolbar and Sidebar

- About Transform Gizmo

- Use of Outliner

- To move the object in different direction in 3D viewport editor

- About Navigation Gizmo

- Use of Properties panel

- About the Timelines

- About Frame range of Timeline in Blender

- About the Add and View panel

2.3 Types of window File Browser

In this tutorial we have learned:

- About File Browser

- To Save Blender file

- Use of Volume tab

- Use of Bookmark tab

- Use of System tab

- Use of Recent tab

- To Open a Blender file

- About the Name and Address tab

- About the different tabs of the file Browser

- Use of Filter File button

2.4 Types of windows Outliner

In this tutorial we have learned:

- About Outliner Editor

- Resize the Outliner Editor

- About the Collection box

- Use of Eye icon

- Use of Camera icon

- Use of Search Panel

- Use of check icon

- Create new Collection

- Add UV Sphere and Cylinder in new Collection

- Hide and show only one Collection at a time

- Render only new Collection object

2.5 Types of window properties part 2

In this tutorial we have learned:

- About Properties panel

- Use of Scene panel

- About the Camera option

- Change the units of the object in the Units panel

- About the Gravity Panel

- Use of World Panel

- Change the background color of the render object

- About the Surface property panel

- Use of Object Panel

- About the Transform panel

- About the Relations panel

2.6 Types of window properties part 4

In this tutorial we have learned:

- About Properties panel

- Use of Material panel

- Add new Material to the Material Slot

- Delete Material from the Material slot

- Use of Preview panel

- Use of Surface panel

- Change the color of the Material

- Use of Modifier properties

- Add a new Modifier to the active object

- Use of Relative Offset panel

Chapter 3

Novice Check

After we made the script and the slides, we needed someone to make sure the script was right. So, we did something called a "novice check".

This means we asked someone who didn't know much about the software to read the script and follow the instructions. As per the rules, if novice gets stuck, he should inform the person who wrote the script.

Hence, I kept changing the script until the novice could understand it. Only after novice's confirmation we gave it to the Spoken Tutorial admin for further review.

The Novice check was performed by Mr.Beerazz Khadka and it is fully completed.

Chapter 4

Learning

Learing from this Experenice:

- Open Source Blender software:
    - How to install Blender
    - Different functionality of Blender interface
    - How to Add and Delete different object on the viewport interface
    - How to manipulate different shapes

- Using LaTex to create presentations and documents.

- Official Etiquette and Professionalism
    - This is the most important quality that we get to learn by experience in the corporate world.
    - The manners and professional greeting styles are not learned in class room but by observing people who are working in the corporate world successfully.

Chapter 5

Challenges

Challenges that I faced during the internship were:

- Getting my first script right according to the ST norms.

- Understanding core functionality of Blender interface.

Chapter 6

Conclusion

On the whole, this internship has been an useful experience. I have gained knowledge and skills. I was able to achieved my learning goals. I learned the different aspects of working to Create a Spoken Tutorial. Furthermore I experienced that it is of importance that the education is objective and that you have to be aware of the view of other people. This helped me to define what skills and knowledge I have to improve in the coming time.

The professional and technical skills I acquired from this internship will certainly help me in my future works. I feel much more confidence in myself, and now I look forward to facing the upcoming challenges of the world. I hope this experience will surely help me in my future. At last this internship has given me new insights and motivation to pursue my career.

Chapter 7

Reference

- http://spoken-tutorial.org/

- https://docs.blender.org/manual/