KGeography

Let's add the map of India

It is a geography learning tool for KDE
Day one...

• Create the political outline map
We can simply get a ready-made map from the web. In this case, we can skip to 'day two'.

Else, we obtain a blank outline map of India like this one.

Link: About.com
• Else, we obtain a blank outline map of India like this one.

• And then we obtain a detailed political map of India preferably from Google maps.
Now we superimpose two maps
To superimpose the blank map (*Layer-II*) over detailed political map (*Layer-I*) we will use GIMP.

In GIMP, the *Layer-I* is taken as basic layer. Over this, we create a new layer (*Layer > New Layer*).

Then, we paste the blank map in the new layer & adjust its size by simple *Copy/Paste* method. Thus we have our *Layer-II*.

Finally, we reduce the transparency of *Layer-II* as shown in the figure before.

---

GIMP (GNU Image Manipulation Program): Website
After this, we draw the divisions i.e., states like West Bengal, Karnataka, Gujarat etc. on blank map (Layer-II) according to political map beneath (Layer-I) using the Pencil tool (_pen_ ) of GIMP.

Thus, we have our political outline map of India on Layer-II which can be separated easily again by Copy/Paste. It can be much better than shown in figure.
Day two...

- Color the divisions of the map
So, now we have the political outline map of India. Now, we will color each division (states & UT's)

For example, West Bengal is filled with green
How to color each division of the map?

- Open the map with GIMP
- Zoom it to appropriate levels e.g., 200%
- Select the Bucket Fill tool.
- Then, select a color from the Triangle tab in the Layers, Channels... window as shown & fill the division with the Bucket Fill tool.
While coloring each division we should keep an RGB table.

What is RGB? Every color has Red(R), Green(G), Blue(B) component. We represent every color component by a value ranging from 0-255. We can easily get these values in GIMP from the Scales tab in Layers, Channels... window.

We represent every division by its corresponding RGB value in a tabular format.
<table>
<thead>
<tr>
<th>Division</th>
<th>Capital</th>
<th>Red(R)</th>
<th>Green(G)</th>
<th>Blue(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Bengal</td>
<td>Kolkata</td>
<td>109</td>
<td>206</td>
<td>107</td>
</tr>
<tr>
<td>Karnataka</td>
<td>Banaglore</td>
<td>93</td>
<td>227</td>
<td>125</td>
</tr>
<tr>
<td>Gujarat</td>
<td>Ahmedabad</td>
<td>211</td>
<td>93</td>
<td>227</td>
</tr>
<tr>
<td>Delhi</td>
<td>New Delhi</td>
<td>213</td>
<td>80</td>
<td>57</td>
</tr>
<tr>
<td>Maharastra</td>
<td>Mumbai</td>
<td>229</td>
<td>178</td>
<td>175</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>Chennai</td>
<td>93</td>
<td>98</td>
<td>227</td>
</tr>
</tbody>
</table>

To explain the table, the division field includes states, UT's & other divisions (ex: Ocean, Frontier etc). Corresponding to each division there may / may not exist a capital, but it does have a RGB value. The RGB values given here strictly correspond to the final map in the next slide....

References: Tabular list of States & UT's
After coloring is done the final map will appear something like this.

We save the map as “india.png” (png format is required).

Obviously coloring can be done according to your choice.
Day three...

- Create the .kgm file
• What is .kgm file? It is the file that integrates a map with KGeography

• Name of .kgm file? The name of this file should be “india.kgm” if the name of map is “india.png”

• Both files “india.png” & “india.kgm” should be placed in home directory of kgeography (default: $KDEDIR/share/apps/kgeography)
Finally, we create the .kgm file

- This is the basic structure of the india.kgm file:

```xml
<map>
  <mapFile>india.png</mapFile>
  <name>India</name>

  <division>
    <name>West Bengal</name>
    <capital>Kolkata</capital>
    <color>
      <red>109</red>
      <green>206</green>
      <blue>107</blue>
    </color>
  </division>

  //Other divisions
</map>
```

These divisions correspond to those listed in RGB table
More about divisions in the .kgm file

- As we can see in the divisions like ocean, frontiers etc., the <ignore> tag should be set to yes. This ignores the division while asking for divisions in the map. By default, it is set to no which means the division is not ignored.

- Another option of <ignore> tag is allowClickMode which ignores the division only in quiz mode, not when asked for divisions of the map.

```xml
<map>
  <mapFile>india.png</mapFile>
  <name>India</name>

  <division>
    <name>ocean</name>
    <ignore>yes</ignore>
    <color>
      <red>106</red>
      <green>107</green>
      <blue>227</blue>
    </color>
  </division>

  // Other divisions
</map>
```


References

- The KGeography Handbook

Maps (to continue this good work)

- Wikimedia Commons

Contact

- Arindam Ghosh, Author
- Albert Astals Cid, KGeography Programmer

This document is distributed under GNU General Public License, Version 2, (GPLv2+).