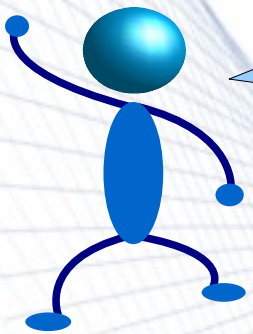
KGeography

Lets' add the map of India

Day one...

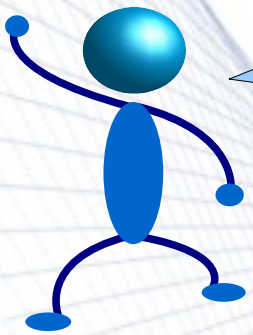
- Create the political outline map



Get a ready political map of India

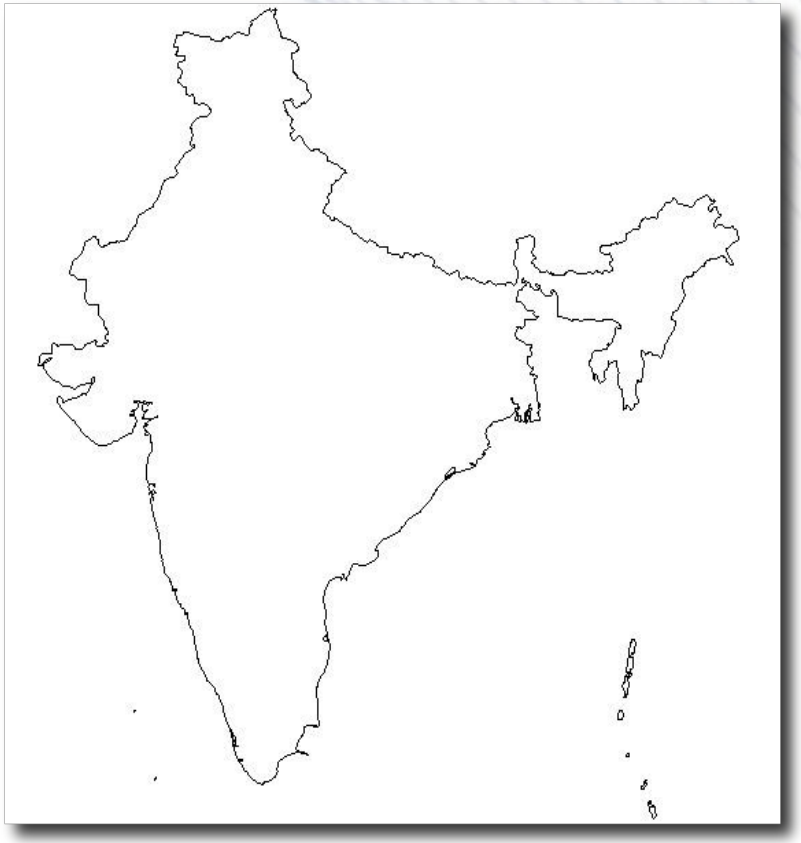
- We can simply get a ready-made map from the web. In this case, we can skip to 'day two'

Link: Wikipedia

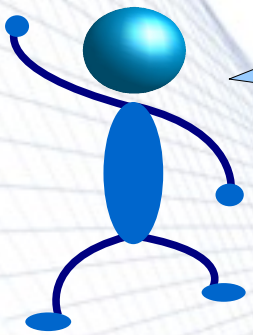


Get a blank political map of India

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



Link: About.com

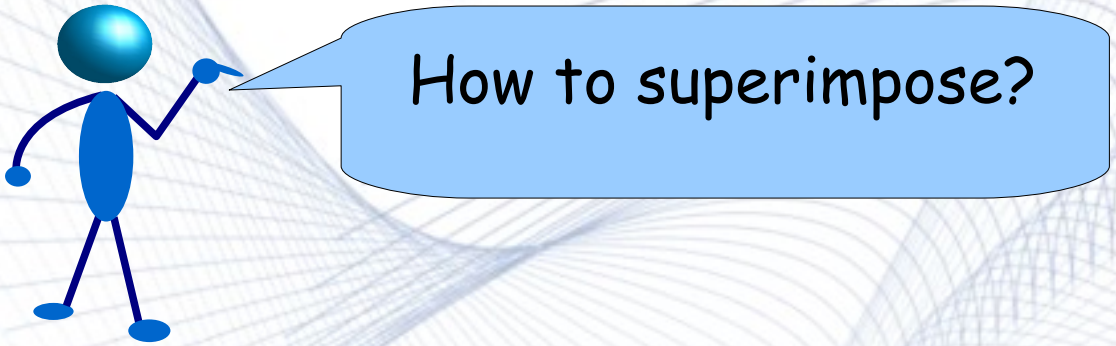


Get a blank political map of India

- 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

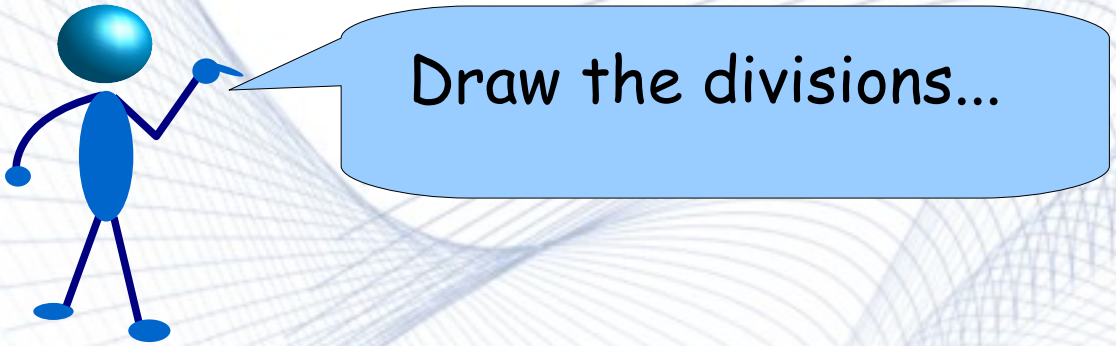
Now we superimpose two maps

Superimpose



- 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



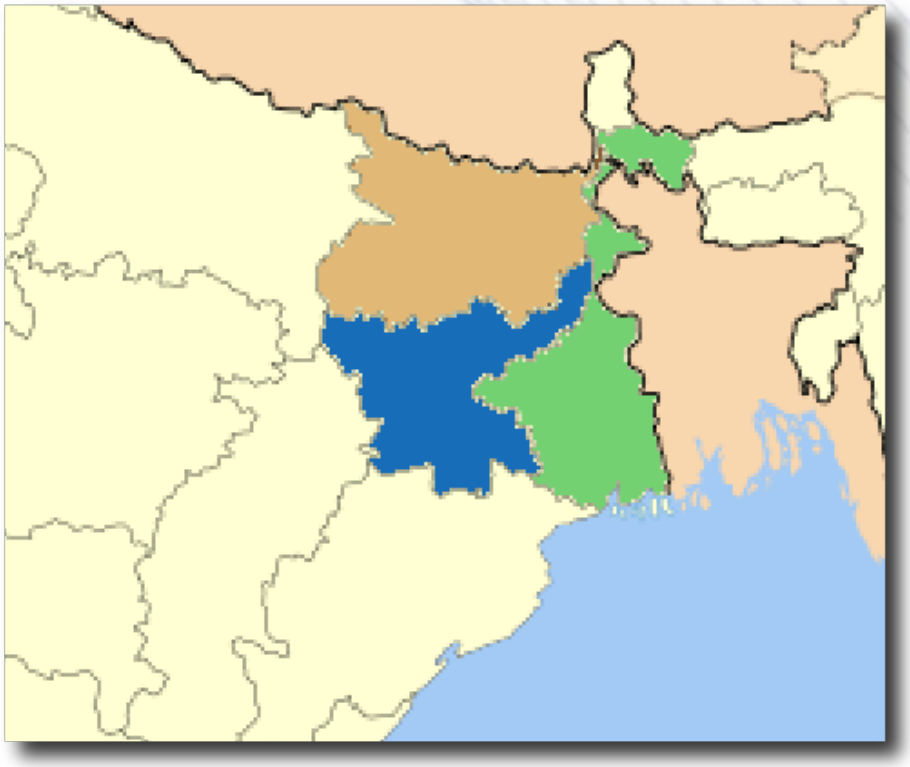
- After this, we draw the divisions i.e., states like West Bengal, Karnataka, Gujarat etc. on blank map (*Layer-II*) according to political map beneath (*Layer-I*) using the Pencil tool ( ) of GIMP
- Thus, we have our political outline map of India on *Layer-II* which can be separated easily again by *Copy/Paste.* It can be much better than shown in figure.

Day two...

- Color the divisions of the map

Now, we color each division of the map

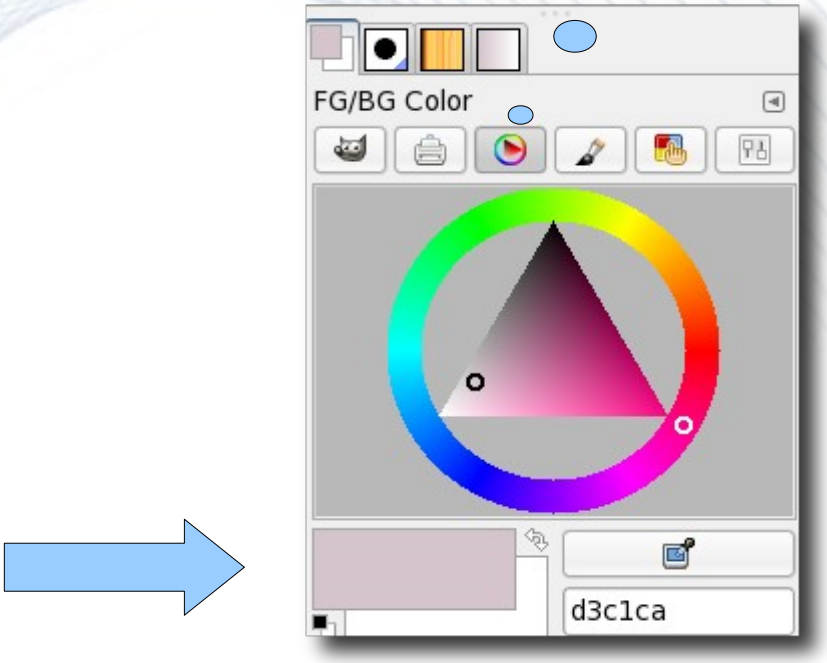
- So, now we have the political outline map of India. Now, we will color each division (states & UT's)
- For example, West Bengal is filled with green



How to color each division of the map?

Triangle Tab

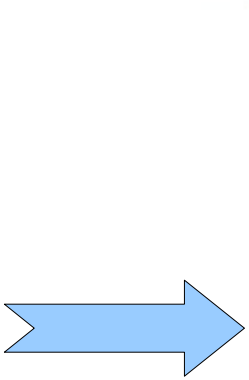
- Open the map with GIMP
- Zoom it to appropriate levels e.g., 200%
- Select the Bucket Fill ( ) tool.
- Then, select a color from the *Triangle* tab in the *Layers, Channels...* window as shown & fill the division with the Bucket Fill tool.

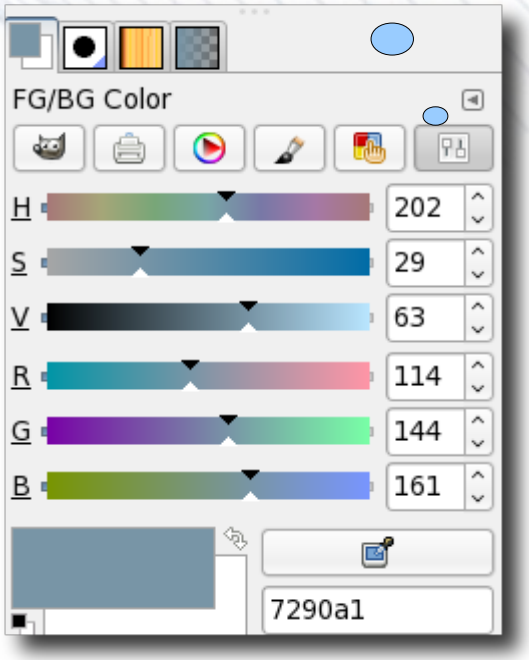


Create an RGB table

Scales Tab

- 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





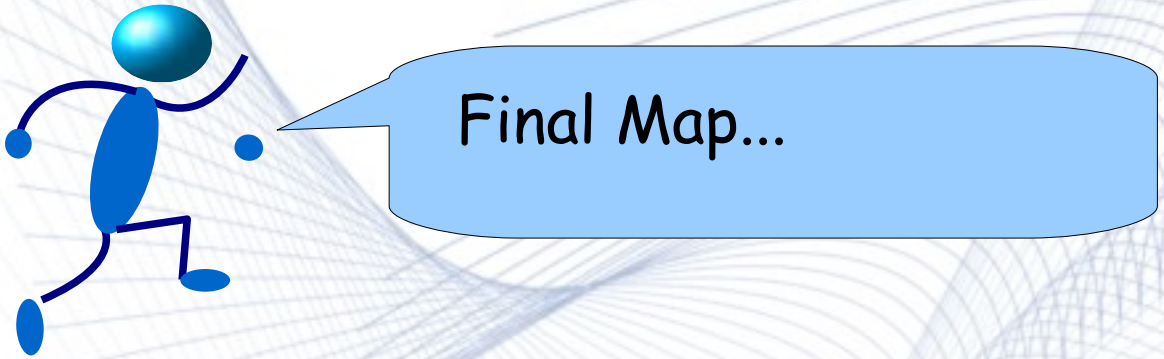
Sample RGB table

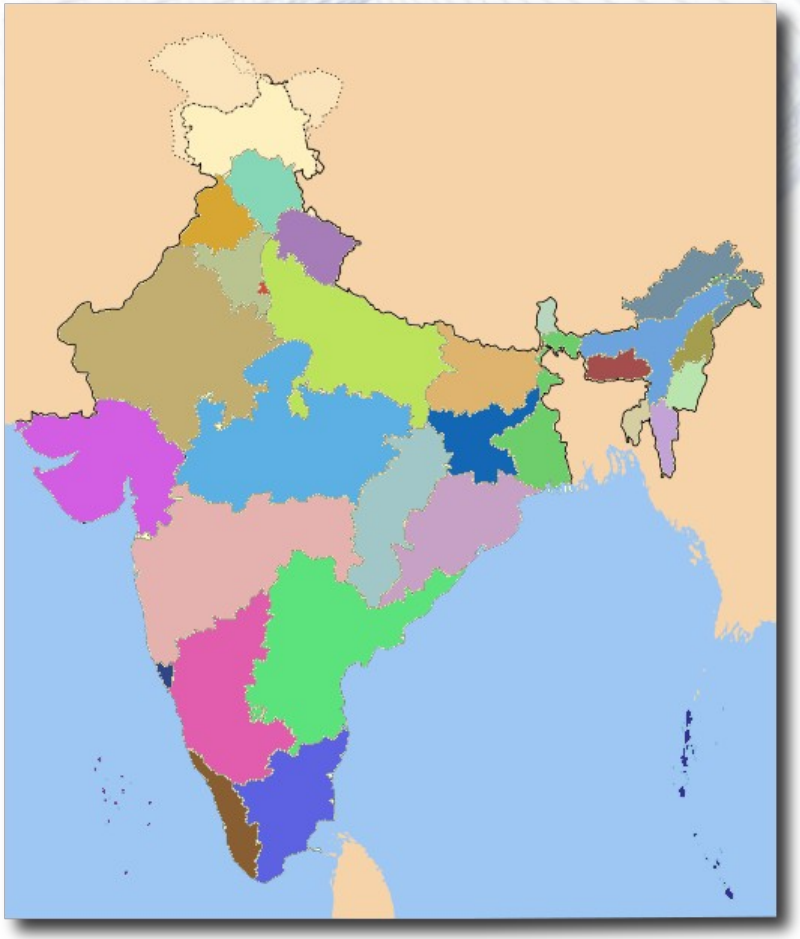
This is just a snapshot of the complete table

Division	Capital	Red(R)	Green(G)	Blue(B)
West Bengal	Kolkata	109	206	107
Karnataka	Banaglore	93	227	125
Gujarat	Ahmedabad	211	93	227
Delhi	New Delhi	213	80	57
Maharastra	Mumbai	229	178	175
Tamil Nadu	Chennai	93	98	227

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

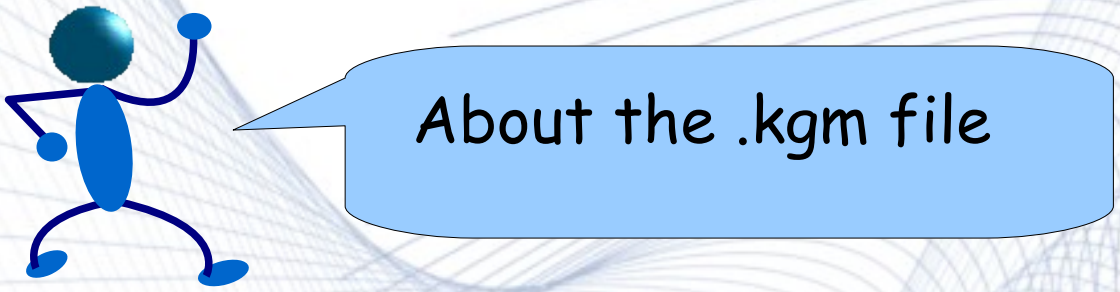




- After coloring is done the final map will appear something like this
- We save the map as “india.png” (png format is required).
- Obviously coloring can be done according to your choice

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 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:

These divisions correspond to those listed in RGB table

```
<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>
```

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.

```
<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 & Extras

- References
  - The KGeography Handbook
- Maps (to continue this good work)
  - Wikimedia Commons
- Contact
  - Arindam Ghosh, Author
  - Albert Astals Cid, KGeography Programmer