

Software Requirement Specification

(SRS)

1) Project Information

- **Title**

Develop a GNU/Linux Distribution.

- **Developer**

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- **Objective:**

The purpose of DMLinux aims to provide all packages and all the softwares to developers and students who don't have very high speed internet connection or who lives in remote area. This system requires no activation unlike in windows. So developers don't have to bother about taking license and activation of os and all these stuffs.

The purpose of Open Gujarat is to provide os to Gujarat students which is completely in regional language (Gujarati).

- **Description:**

1) DMLinux:

DMLinux stands for developers' mono Linux. It is an Open source and Free GNU/Linux Operating system originally forked from Ubuntu. DMLinux is developed for developers and Computer Science/I.T. students. It helps Coders, Programmers and Software Engineers in their every day's tasks.

2) OpenGujarat

OpenGujarat is a GNU/Linux open source operating system developed for students who have some problems in understanding English language. so these students find it easy to use which is in regional language.

2) Scope:

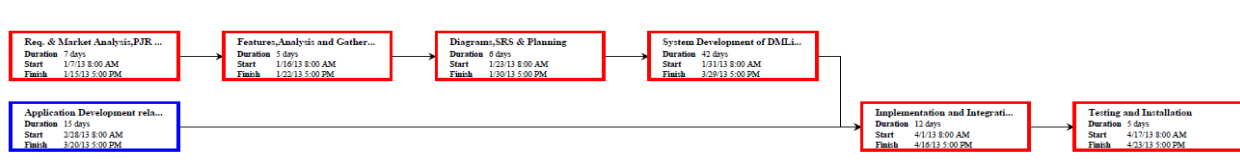
- **Scope for DMLinux:**

Developers, Coders, Programmers, Software engineers

- **Scope for OpenGujarat:**

BISAG, Offices of Govt. of Gujarat, and other regional people of Gujarat

3) Project schedule



4) Software testing/Quality assurance arrangements

- **For live testing or quality assurance tools:**

Hardware: LAPTOP, PC as live disc

Software: Virtual Box, qemu

5) Detail specification of the project

- **DMLinux:**

Development of GNU/Linux distribution for Developers,Coders,Programmers,
Software,Engineers.

- ✚ **Features of DMLinux:**

- Productive GUI(DE)

- Language support like python,perl,ruby,etc.

- Inbuilt essential IDEs like eclipse,netbeans,Qt

- Inbuilt android development SDK support with eclipse

- Markdown support

- Inbuilt Hardware based programming IDE like Arduino,Logisim

- Customized DE with Eye-candy theme and icons

- Inbuilt Web server (Apache,tomcat and Glassfish)

- Aptana studio IDE for web developers

- Customised Firfox with FirefoxOS application development toolkit for mobile phones

- Linux app development utilities like quickly toolkit

- ISO size : around 3 GB

- ✚ **System modules of DMLinux :**

Core Module:

This module contains all core files means Kernel,device drivers,network utilities,etc. This will be available in Ubuntu minimal disc(27 MB). We are not going to touch this files for development.

Application module:

- This module contains all necessary applications needed for software developers.
- All inclusion of application is based on our analysis and reviews of some developers working in some companies and our alumni.
- We will try to develop following application after completion of system build.
 - Auto ON Utility: Boot PC at given user time when PC is already in shutdown.
 - LAMP front end : Apache MySQL and PHP front end to manage this running services
 - Repo-cloner : Local server package management utility
 - Multi Document converter : source markdown to multiple document format conversion.

Desktop Environment module:

This module contains desktop environment provided in DMLinux. We have choosen GNOME Shell 3.6 as Desktop environment for DMLinux.

We will customize gnome shell to make more usefull and productive then its original version.

• Open Gujarat:

A development of Gujarati GNU/Linux distribution as per requirement of BISAG.

Features of DMLinux:

Developed in Gujarati

Very lightweight

can run with 256mb RAM

Inbuilt Gujarati dictionary(developed by us) support

Simple Desktop Environment having Windows type mock-up

ISO size : around 900mb

System modules of OpenGujarat :

Core Module:

This module contains all core files means Kernel,device drivers,network utilities,etc. This will be available in Ubuntu minimal disc(27 MB). We are not going to touch this files for development.

Application module:

This module contains all necessary applications needed for simple tasks.

All inclusion of application is based on requirement of BISAG.

We will try to develop following application after completion of system build.

- English to Gujarati Dictionary

Desktop Environment module:

This module contains desktop environment provided in DMLinux. We have choosen XFCE 4.1 for OpenGujarat.

6) System Limitation

- Both the distributions maynot work properly below Pentium dual core processor.

7) System Requirements (For Use of Application)

❖ Hardware Requirements:

1)DMLinux

Processor: Pentium 4 or later & Freq. 1GHz or more

Minimum RAM: 1 GB RAM

Recommended Space: approximate 8 to 9 GB

Color Monitor, Keyboard and Mouse

Internet or Intranet

2)OpenGujarat

Processor: Pentium 4 or later & Freq. 1GHz or more

Minimum RAM: 1 GB RAM

Recommended Space: approximate 8 to 9 GB

Color Monitor, Keyboard and Mouse

Internet or Intranet

8) Details of tool-sets for development

❖ Common tool-sets for developing system:

UCK toolkit,Remastersys toolkit,chroot commandline utility,shell-scripting,python libraries,

❖ Tools sets for developing applications:

Quickly development toolkit,Zenity framework,YAD framework,Glade for GUI