State Level Awareness Workshop for the state of Jharkhand in Ranchi on e-Governance Standards & Guidelines, 28th -29th April, 2023

Hotel Capitol Hill, Mahatma Gandhi Main Rd, Ranchi, Jharkhand- 834001

Localization and Language Technology Standards

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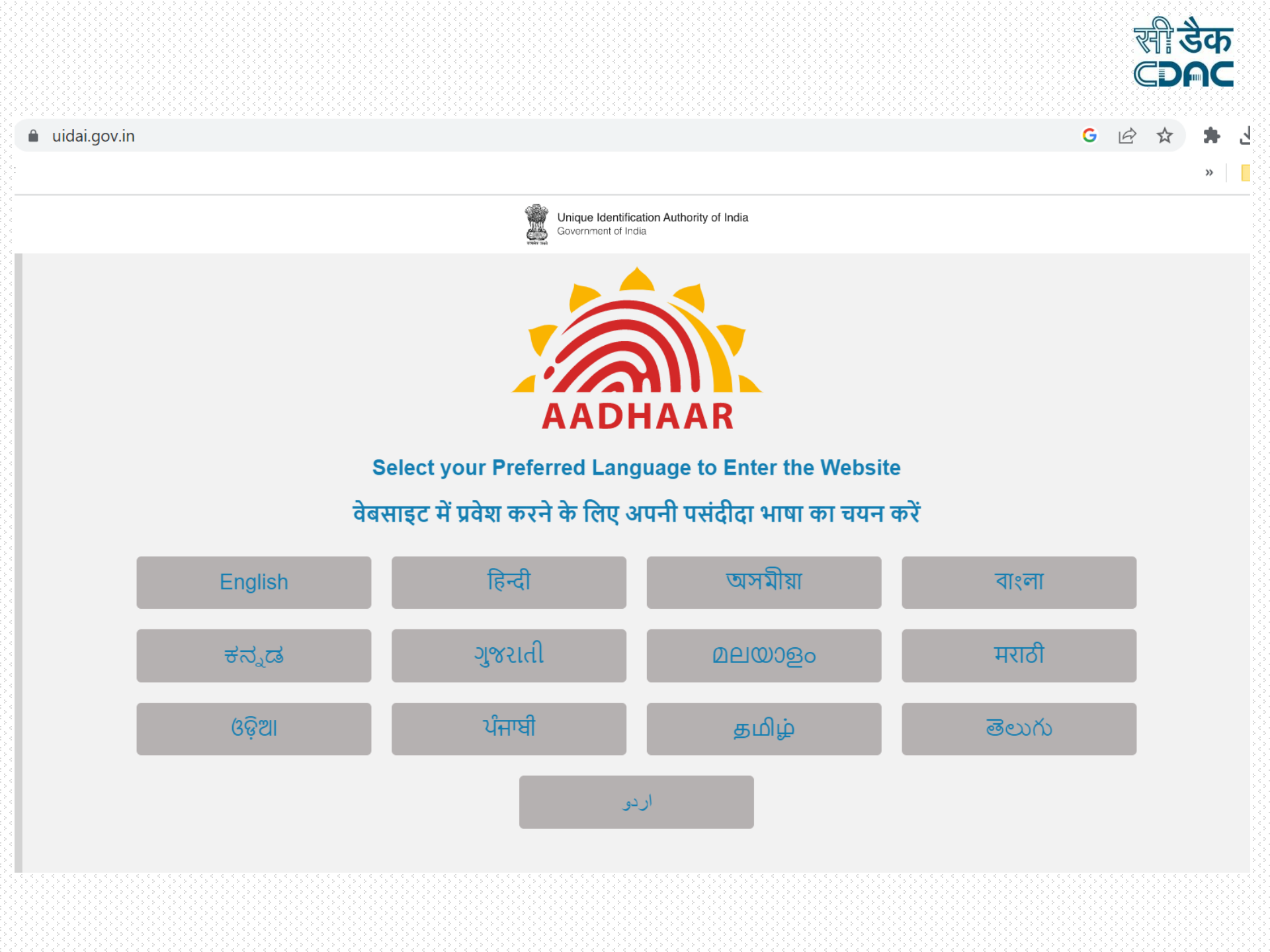
Standards ensure seamless sharing of information & interoperability of e-Governance applications

Presentation outline

- Background and Importance of Localization
- Indian Language Computing – Basic Elements
- Standards & Guideline for Language Computing
- Availability of tools for Indian languages
- Database and Website search
- Localization Standards and Best Practices
- Localization Guidelines

Background – Importance of Localization

- Most computer systems, software solutions and devices even today are designed and developed keeping English as primary language.
- Digital India aims to transform India into a digitally empowered society and knowledge economy.
- Also, aims to ensure that the Government's services are made available to citizens electronically.
- More than 90% of the population of the country are Non-English speakers.
- Attempt to reach out to these 90% population through localisation of applications, data, reports, code, services, devices..... for Indian Languages


uidai.gov.in
Unique Identification Authority of India
Government of India
AADHAAR
Select your Preferred Language to Enter the Website
वेबसाइट में प्रवेश करने के लिए अपनी पसंदीदा भाषा का चयन करें
English
हिन्दी
অসমীয়া
বাংলা
ಕನ್ನಡ
ગુજરાતી
മലയാളം
मराठी
ଓଡ଼ିଆ
ਪੰਜਾਬੀ
தமிழ்
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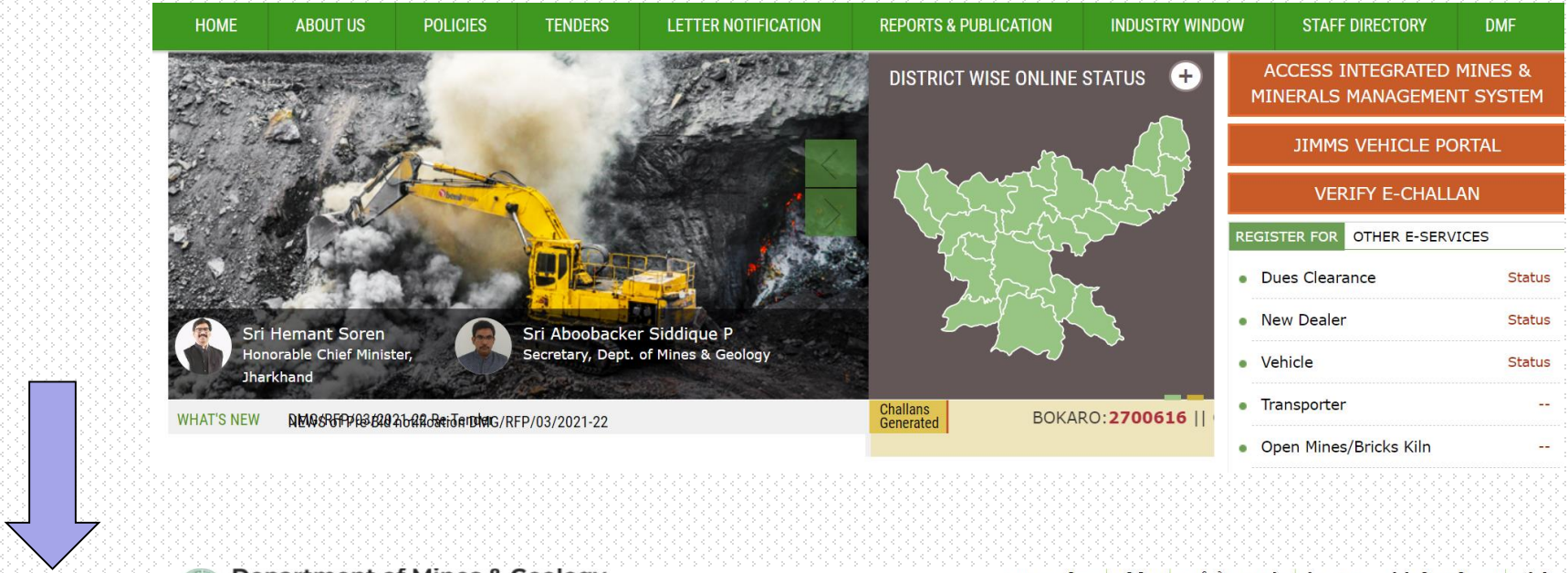
HOME
ABOUT US
POLICIES
TENDERS
LETTER NOTIFICATION
REPORTS & PUBLICATION
INDUSTRY WINDOW
STAFF DIRECTORY
DMF
Sri Hemant Soren
Honorable Chief Minister, Jharkhand
Sri Aboobacker Siddique P
Secretary, Dept. of Mines & Geology
WHAT'S NEW
DISTRICT WISE ONLINE STATUS
Challans Generated
BOKARO:2700616
ACCESS INTEGRATED MINES & MINERALS MANAGEMENT SYSTEM
JIMMS VEHICLE PORTAL
VERIFY E-CHALLAN
REGISTER FOR
OTHER E-SERVICES
Dues Clearance
Status
New Dealer
Status
Vehicle
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Transporter
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Open Mines/Bricks Kiln
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Department of Mines & Geology
Government of Jharkhand
सूचना का अधिकार
प्रतिक्रिया
फार्म और डाउनलोड
डेटा अद्यतन करने के लिए अधिसूचना
अंग्रेजी
खोजें .....
ए-
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I
हमारे बारे में
नीतियाँ
निविदाएं
अधिसूचना पत्र
रिपोर्ट और प्रकाशन
उद्योग विंडो
स्टाफ़ निदेशिका
डी एम एफ
श्री हेमंत सोरेन
मुख्यमंत्री, झारखंड
अबूबकर सिद्दीक पी
सचिव, खान और भूविज्ञान विभाग
क्या नया
जिलेवार ऑनलाइन स्थिति
चालान उत्पन्न
DHANBAD:46
एकीकृत खनन और खनिज प्रबंधन प्रणाली
जिम्स वाहन पोर्टल
ई-चालान सत्यापित करें
के लिए पंजीकृत करें
अन्य ई-सेवाएँ
बकाया मंजूरी
स्थिति
नया डीलर
स्थिति
वाहन
स्थिति
ट्रांसपर्टर
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खुला खान ठेकेदार
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eGovernance – Importance of Localization

- The government has mission of making digital services accessible to the common masses.
- The success of digital initiatives and e-Governance services depends of their easy accessibility and broad reach
- It is imperative that online services and products offered are in the language of the local user.
- Language equality across govt platforms must for effective public service delivery

Indian Language Computing – Basic Elements

All systems can be broken down into three parts

- Inputting
  - First INSCRIPT keyboard standard was published by BIS in 1991 (IS 13194: 1991)
  - Enhanced INSCRIPT keyboard layouts (IS 16350: 2016).
  - Indian Language Support for Mobile Phones as per IS 16333 (Part 3) : 2016
  - Phonetic / Transliteration, Typewriter
- Storage / Processing
  - UNICODE de-facto standard for storage of Multilingual text. Current version is 15.0 released on 13th Sept 2022.
- Output
  - UNICODE compliant Open Font format Fonts (ISO/IEC 14496-22 Part 22: Open Font Format)

Applications for Indian Languages should have support throughout the lifecycle of the system – rather than being an after thought.

Enhanced INSCRIPT keyboard layouts (IS 16350: 2016)

- Bureau of Indian Standards (BIS), the national standards body of India has published a standard on 'Enhanced Inscript keyboard layouts' (IS 16350: 2016) on 07th June 2016.

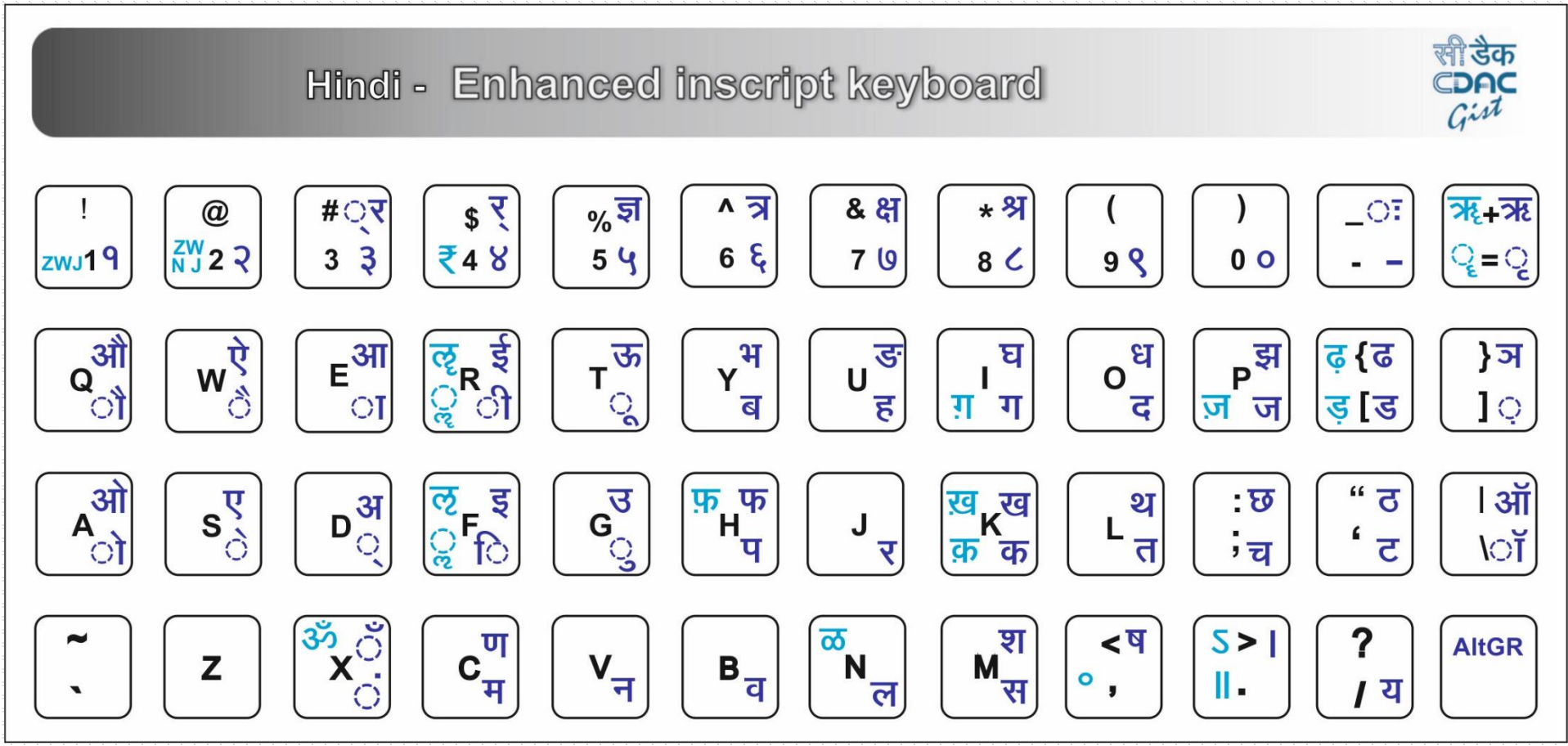
- The standard covers code charts, characters and character names for 11 Indian scripts which cover all 22 official languages of India which are identical to ISO/IEC 10646 (Universal Coded Character Set).

- Additionally, this standard gives enhanced versions of the Inscript keyboard layouts and mapping of the code points with the respective keyboard layouts.

- Further, this standard is also referred in published standards IS 16333: 2016 Indian Language Support for Mobile Phone Handsets

Working with Indian Languages

Enhanced INSCRIPT keyboard layouts (IS 16350: 2016)

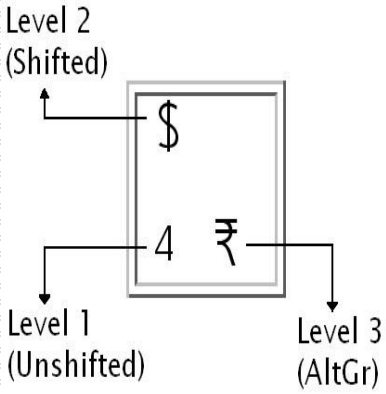


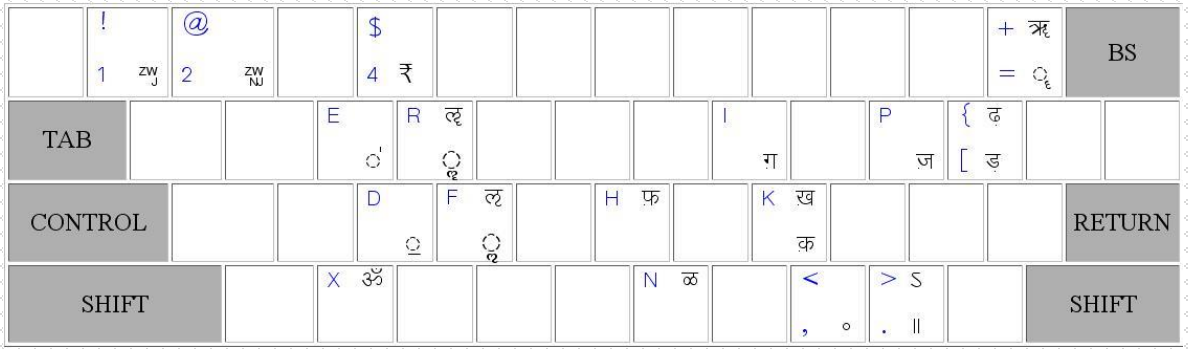
Enhanced INSCRIPT Standardization for Latest Unicode Version

- Study and Research for Keyboards of various languages Normal layer and Extended layer
- Along with teams from – Microsoft, Redhat and IBM

- The Enhanced INSCRIPT keyboard layout provides three layers and this to accommodate all the extra characters and yet make the keyboard as ergonomic and efficient as possible

Standardization of Rupee Symbol Inputting





Made available for free download on

http://tdil-dc.in

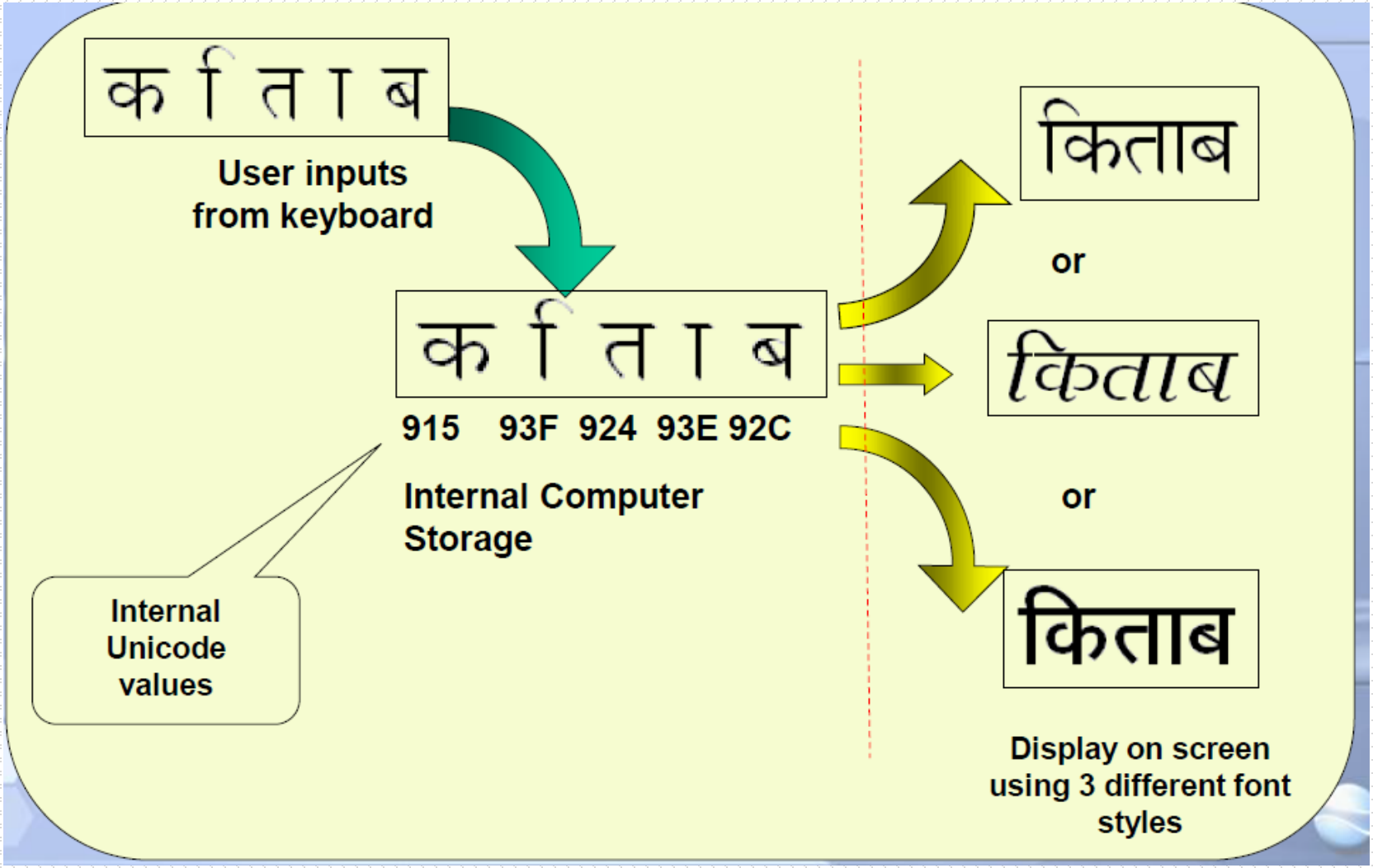
Indian Language Support for Mobile Phones as per IS 16333 (Part 3) : 2016

- Indian Language Support for mobile phones as per IS 16333 (Part 3): 2016 was mandated by MeitY with effect from 1 July 2017 vide order dated 24 October 2016 bringing it under the provisions of "Electronics and Information Technology Goods (Requirements of Compulsory Registration) Order, 2012".

- As per the mandate, all mobile phones in the country will have to provide text reading support in all Indian languages on their devices.

- The standard mandates mobile phone companies to provide message typing facility in English, Hindi and a regional language of their users choice.

Akshara (Syllable) Formation



Indian Language Nuances and complexities

Alternate Spellings

हिंदी : ह + ि + ं + द + ी

हिन्दी : ह + ि + न + ् + द + ी

तसवीर : त + स + व + ी + र

तस्वीर : त + स + ् + व + ी + र

Reordering

क ि त ा ब

क ि त ा ब

(179+219+194+218+202)

किताब

(ि+क+त+ा+ब)

Alternate forms

अन्न : अ + न + ् + न

अन्न : अ + न + ् + ् + न

अन्न : अ + न + ् + INV (ZWJ) + न

बिट्टु : ब + ि + ट + ् + ् + ् + ट + ु

बिट्टु : ब + ि + ट + ् + ट + ु

ट्ठ : ट + ् + ठ	:	ट्ठ : ट + ् + ् + ् + ठ
द्ध : द + ् + INV + ध	:	द्ध : द + ् + ध
ड्ड : ड + ् + ड	:	ड्ड : ड + ् + ् + ् + ड

Working with English

Inputting

- The keys on the keyboard are mapped to ASCII characters.
- One to One mapping between keys and the English characters

Display

- The glyph representing the character pressed is displayed.
- The English font contains the glyphs at the position specified by the ASCII character set.
- One to One mapping between the characters and the glyphs

  Example: Hi = H + I

Storage

- The ASCII value of the characters is stored.

Printing

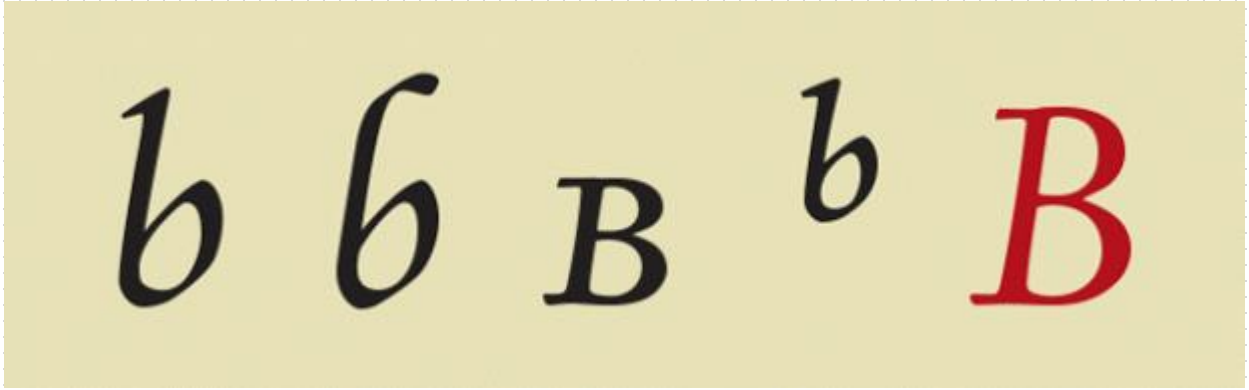
- The glyphs representing the ASCII characters are printed.

Character vs. Glyph

A character is the symbol representing a letter.

A glyph is the specific shape, design, or representation of a character.

Collection of glyphs representing the character “a”.



(left) The lowercase “b” character is represented by four glyphs in Jenson italic: the standard b, an alternate, a small cap, and the superscript. (right) The capital “B” is a different character.

Complexity of Indian Languages

- Character Set
  - Consonants (k, kh, g, gh)
  - Vowels (Ae, e, E)
  - Vowel Sign (Matras)
  - Vowel Modifiers (Chandrabindu, anuswar, visarg)
  - Others (Halant, Nukta)

- Shape of a character does not remain constant

  Example: क्या

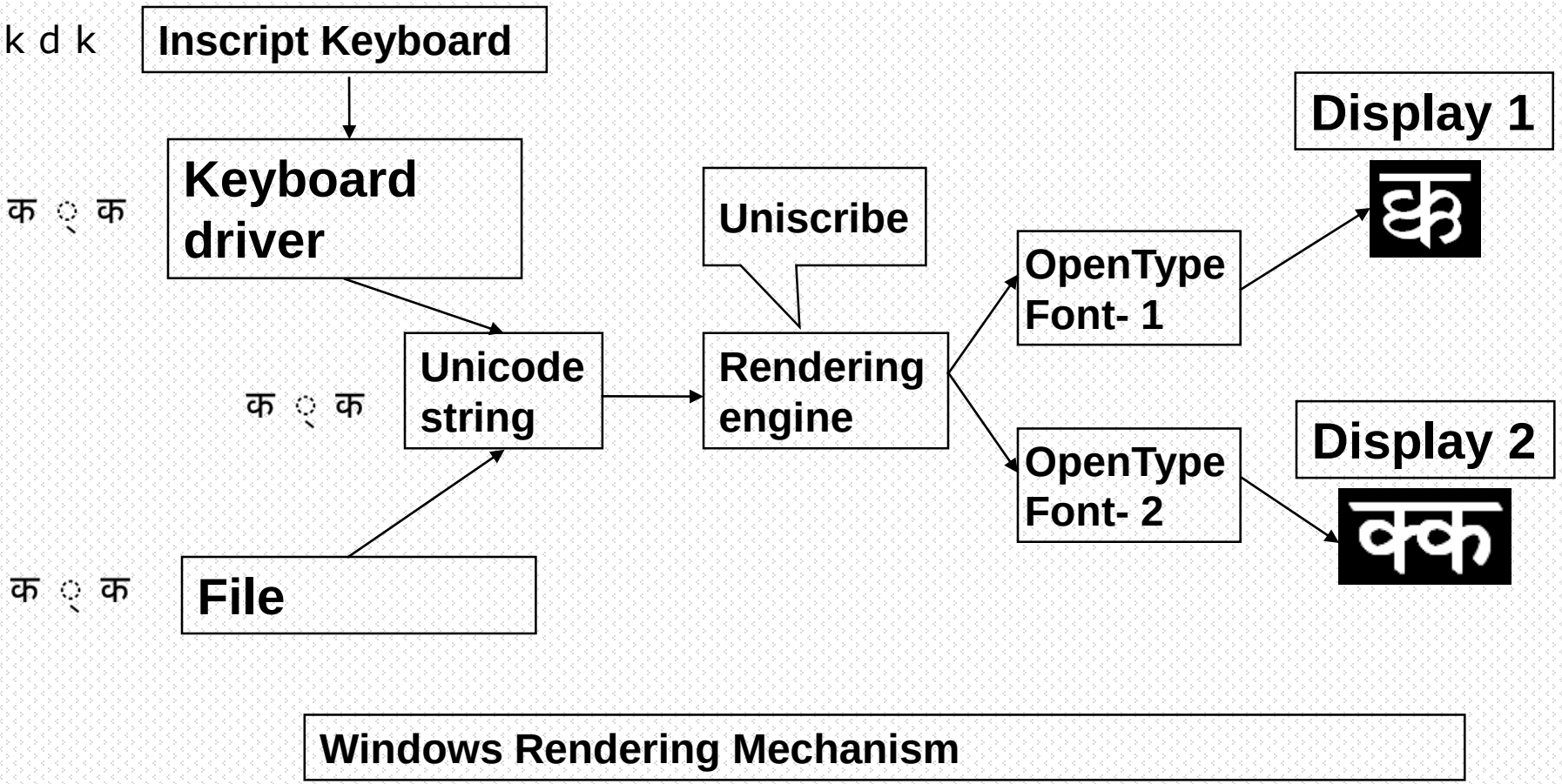
  According to Devnagari Script Rules क + ् + य + ा = क्या

- Here the shape of the क gets modified.
- Hence no one to one mapping between character and its shape.

Display : Open Font format -Fonts

- Joint effort by Adobe and Microsoft.
- 16-bit Unicode compliant, more glyphs possible.
- Glyph substitution & positioning logic built into the font
- Storage-to-display conversion is done by the rendering engine
- Data is not stored in glyph codes rather in Unicode
- No issue of data portability
- No need to have a font glyph standard

Unicode and OpenType Fonts



Sakal Bharati font

- A single font which contains all the Indic scripts has been developed by C-DAC Pune. This font has got consistent look and feel across various Indian Scripts including English language.
- This font can be downloaded from the url: http://www.tdil-dc.in

کمپیوٹر کی دوڑ میں ہم کہاں ہیں؟

Sakal Bharat **Assamese** Normal

কঁহুৱা বন মোৰ অশান্ত মন,

Sakal Bharat **Devanagari** Normal

भारतीय भाषाएं और सामाजीक परिवर्तन।

Sakal Bharat **Gujarati** Normal

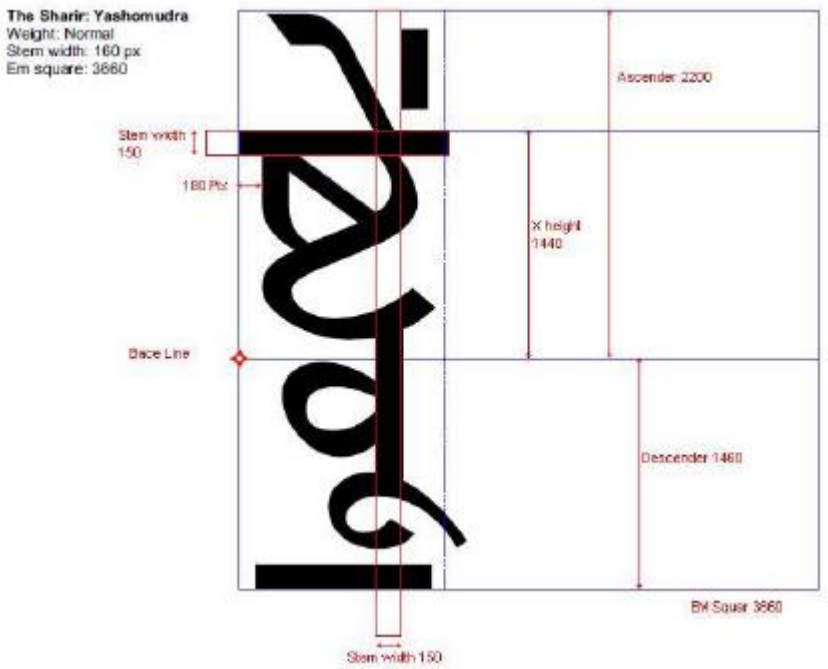
ભારતીય ભાષાઓ અને સામાજીક પરિવર્તન।

Sakal Bharat **Oriya** Normal

ଇଂଗିତ ପ୍ରଶ୍ନ ଦୟାକରି ମନୋନୀତ କରନ୍ତୁ

Sakal Bharat **Punjabi** Normal

ਪੰਜਾਬ ਪੰਜ ਦਰਿਆਵਾਂ ਦੀ ਧਰਤੀ ਹੈ।

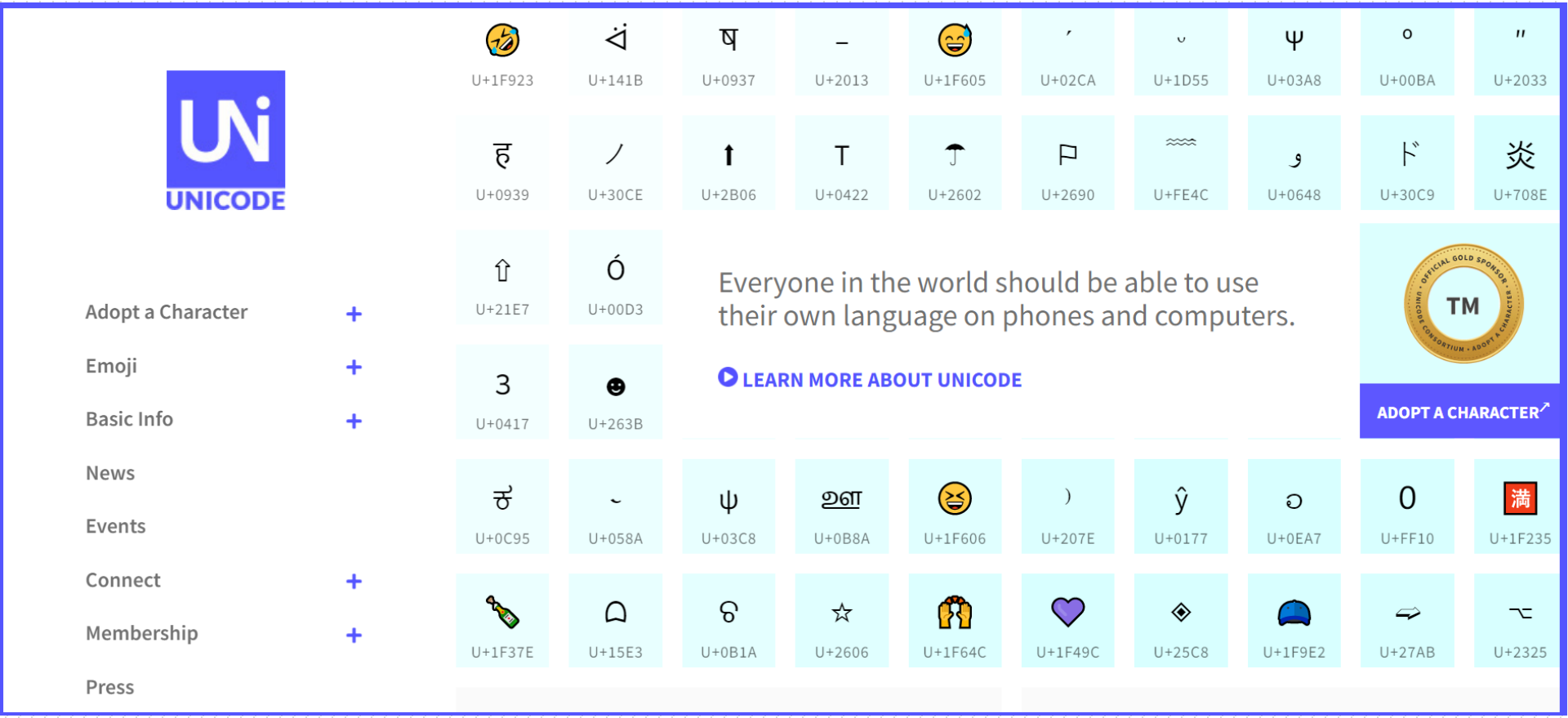


https://github.com/RajyaMarathiVikasSanstha/Yashomudra

UNICODE

- Storage standard
- What ASCII is for English, Unicode is for other languages of the world
- Enables seamless exchange of data – desktops, printers, databases, browsers, devices.

UNICODE



Latest stable version – 15.0

UNICODE

- Unicode consortium defines Unicode as :

- "Unicode is the universal character encoding, maintained by the Unicode consortium. This encoding standard provides the basis for processing, storage and interchange of text data in any language in all modern software and information technology protocols."

- It is the superset of all the languages in the world which also includes punctuation, special characters (shapes), currency symbols, mathematical symbols etc. Using Unicode, more than 65000 different characters can be represented. Unicode comprises of many code charts.

- The Unicode code charts can be referred at: http://www.unicode.org/charts

UNICODE

- Various editors / applications / development environments / databases / browsers need to understand how to read in the given Unicode data and interpret the same.
- Various encoding schemes to represent Unicode are UTF-8, UTF-16, UTF-32 with a combination of endian-ness. (Little & Big Endian -two ways of storing multi-byte data-types)
- There are normalization rules which are required to be followed for data compatibility between various applications / underlying environment.
- Non adherence to some of these may lead to wrong interpretation of data and will also pose problems in searches as well.

Normalization in Unicode

- The Unicode data requires normalization.
- There are many cases where a character can be entered in more than one ways.
- If application or database does not normalize, searching becomes difficult.

रिज़र्व

ज + ◌़ = 091C+093C

ज़ = 095B

रिज़र्व = र + ि + ज + ़ + र + ् + व

Also = र + ि + ज़ + र + ् + व

Character semantics

- The Unicode standard includes an extensive database that specifies a large number of *character properties*, including:
  - Name
  - Type (e.g., letter, digit, punctuation mark)
  - Decomposition (Å can be formed with U+00C5 or U+0041 & U+030A)
  - Case and case mappings (for cased letters)
  - Numeric value (for digits and numerals)
  - Combining class (for combining characters)
  - Directionality (Left to Right or Right to Left)
  - Line-breaking behavior
  - Cursive joining behavior (in Arabic, a character used at the beginning of a word looks completely different when it is used as the last character of a word)

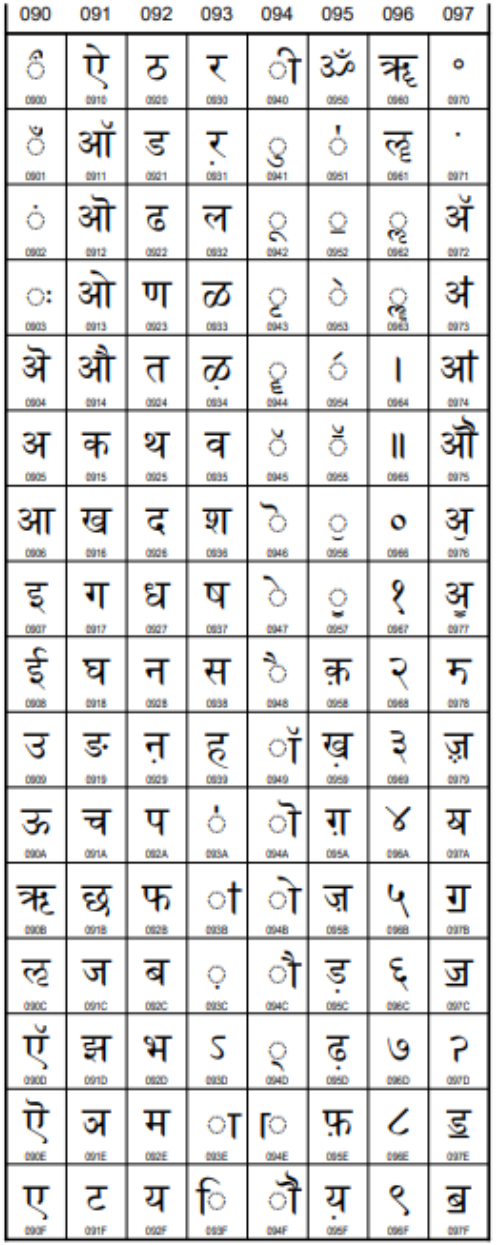
https://util.unicode.org/UnicodeJsps/character.jsp

Advantages of UNICODE

- Character based encoding.
- Can be ported on any platform and any OS.
- Can be ported on hand held and mobile devices
- Different scripts have different code page.
- All Indian languages are supported along with all other languages.
- Allows multiple languages in the same data.

UNICODE Devanagari Code Page

0900 Devanagari 097F



	090	091	092	093	094	095	096	097
0	ऀ 0900	ऐ 0910	ठ 0920	र 0930	ी 0940	ॐ 0950	ॠ 0960	॰ 0970
1	ँ 0901	ऑ 0911	ड 0921	ऱ 0931	ु 0941	॑ 0951	ॡ 0961	ॱ 0971
2	ं 0902	ओ 0912	ढ 0922	ल 0932	ू 0942	॒ 0952	ॢ 0962	ॲ 0972
3	ः 0903	ओ 0913	ण 0923	ळ 0933	ृ 0943	॓ 0953	ॣ 0963	ॳ 0973
4	अ 0904	औ 0914	त 0924	ऴ 0934	ॄ 0944	॔ 0954	। 0964	ॴ 0974
5	आ 0905	क 0915	थ 0925	व 0935	ॅ 0945	ॕ 0955	॥ 0965	ॵ 0975
6	इ 0906	ख 0916	द 0926	श 0936	ॆ 0946	ॖ 0956	० 0966	ॶ 0976
7	ई 0907	ग 0917	ध 0927	ष 0937	े 0947	ॗ 0957	१ 0967	ॷ 0977
8	उ 0908	घ 0918	न 0928	स 0938	ै 0948	क़ 0958	२ 0968	ॸ 0978
9	ऊ 0909	ङ 0919	ऩ 0929	ह 0939	ॉ 0949	ख़ 0959	३ 0969	ॹ 0979
A	ऋ 090A	च 091A	प 092A	ऺ 093A	ॊ 094A	ग़ 095A	४ 096A	ॺ 097A
B	ऌ 090B	छ 091B	फ 092B	ऻ 093B	ो 094B	ज़ 095B	५ 096B	ॻ 097B
C	ऍ 090C	ज 091C	ब 092C	़ 093C	ौ 094C	ड़ 095C	६ 096C	ॼ 097C
D	ऎ 090D	झ 091D	भ 092D	ऽ 093D	् 094D	ढ़ 095D	७ 096D	ॽ 097D
E	ए 090E	ञ 091E	म 092E	ा 093E	ॎ 094E	फ़ 095E	८ 096E	ॾ 097E
F	ऐ 090F	ट 091F	य 092F	ि 093F	ॏ 094F	य़ 095F	९ 096F	ॿ 097F

Availability of tools

- UNICODE is not vendor specific
- It is Backward compatible
- Major database, OS, browser players support some form UNICODE encoding

- Data Migration services can be provided for e-governance developers
- Office documents such as .doc/.docx, .xls/xlsx, .txt can be converted to UNICODE
- Database migration tools can also be made available.

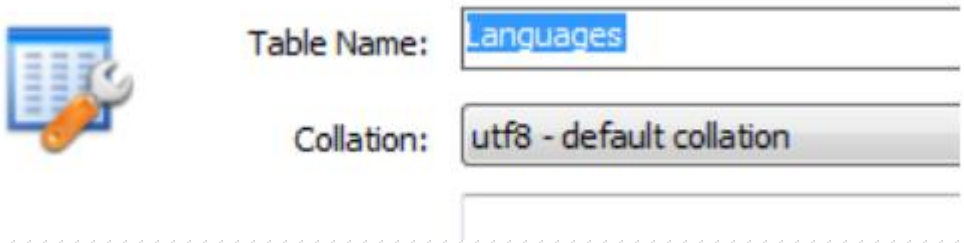
https://localisation.gov.in/

Tools Availability

- UNICODE typing Tool is available for free download from http://ildc.in and http://www.cdac.in
- It has all 22 languages and supports enhanced INSCRIPT layout including the ₹ Symbol
- The keyboard sticker layouts are also available for download from http://ildc.in
- Onscreen Javascript code for websites is made available free of cost to all e-governance developers

Storing data in Databases

You need to set UTF-8 Collation for the Table to store the various languages text characters



INSERT INTO Languages VALUES('English', 'World is beautiful.');

INSERT INTO Languages VALUES('Hindi', 'दुनिया सुंदर है।');

INSERT INTO Languages VALUES('Marathi', 'जग सुंदर आहे.');

INSERT INTO Languages VALUES('Gujarati', 'વિશ્વ સુંદર છે.');

Searching in Databases

- Several words have **multiple correct spellings** and **Alternate representation forms**
- E.g.: the word Hindi may be written with a bindi on top of the first syllable or with a half na.

हिंदी हिन्दी

- What should happen in case of using database queries
- So also with the representations of the word vitthal विट्ठल विठ्ठल
- Indian Language numerals are not mapped to English numerals.

Searching in Indian language Websites

- Provide Relevant titles for WebPages
- Main / summarized information of activity to appear in index page
- Images, pdfs, video, audio files should have proper naming convention and names should be appropriate to the contents of the images / pdf.
- Use of Search Engine optimization techniques.

Terminology in Translations

Localisation of strings

- Translation v/s Transliteration
- Technical Term v/s common man's Term
- Physical-size of localized equivalent strings
- 3 out of 22 languages are right to left oriented
- Location / Layout
  - Positioning of back-next buttons, scroll bar positions for applications supporting right to left scripts.
  - coexisting along with English (Bi-directional support)

Localization of strings

- Context and Domain specific meanings
  - Example
    - the word ‘Bank’ (Financial Entity, River bank, to trust on someone/thing, etc.)
    - the word ‘Fire’ (may very in meaning depending on context) – If it is as a verb (such as fire an event) then it may suggest some action to be undertaken, If noun then the meaning changes completely
  - Multi-Domain expertise as well as context may be required apart from linguistic know-how

Localization of strings

- Technical terminology
  - Differentiating between similar meaning such as cancel, abort, terminate
  - Translation v/s Transliteration (IPR and registered copyrights and trademarks)

  - What should be Localized string for :
    - Windows
    - Mouse
    - FireFox
    - Internet Explorer
    - Double click
    - Dock Windows

Common Locale Data Repository (CLDR)

- Current version is V42 released on 19-10-2022
- The locale is an explicit model and definition of a native-language environment.
- The notion of a locale is explicitly defined and included in the POSIX standard which can be accessed through http://opengroup.org.
- A program's locale defines its code sets, date and time formatting conventions, monetary conventions, decimal formatting conventions, and collation (sort) order.

http://cldr.unicode.org/

Common Locale Data Repository (CLDR)

- The CLDR provides key building blocks for software to support the world's languages.
- **Locale-specific patterns for formatting and parsing:** dates, times, timezones, numbers and currency values, measurement units.
- **Translations of names:** languages, scripts, countries and regions, currencies, eras, months, weekdays, day periods, time zones, cities, and time units, emoji characters and sequences (and search keywords)
- **Language & script information:** characters used; plural cases; gender of lists; capitalization; rules for sorting & searching; writing direction; transliteration rules; rules for spelling out numbers; rules for segmenting text into graphemes, words, and sentences; keyboard layouts
- **Country information:** language usage, currency information, calendar preference, week conventions
- **Validity:** Definitions, aliases, and validity information for Unicode locales, languages, scripts, regions, and extensions,

Common Locale Data Repository (CLDR)

Who uses using CLDR?

- Apple (macOS, iOS, watchOS, tvOS, and several applications; Apple Mobile Device Support and iTunes for Windows; …)
- Google (Web Search, Chrome, Android, Adwords, Google+, Google Maps, Blogger, Google Analytics, …)
- IBM (DB2, Lotus, Websphere, Tivoli, Rational, AIX, i/OS, z/OS,…)
- Microsoft (Windows, Office, Visual Studio, …)

*and many others, including:*ABAS Software, Adobe, Amazon (Kindle), Amdocs, Apache, Appian, Argonne National Laboratory, Avaya, Babel (Pocoo library), BAE Systems Geospatial eXploitation Products, BEA, BluePhoenix Solutions, BMC Software, Boost, BroadJump, Business Objects, caris, CERN, CLDR Engine, Debian Linux, Dell, Eclipse, eBay, elixir-cldr, EMC Corporation, ESRI, Firebird RDBMS, FreeBSD, Gentoo Linux, GroundWork Open Source, GTK+, Harman/Becker Automotive Systems GmbH, HP, Hyperion, Inktomi, Innodata Isogen, Informatica, Intel, Interlogics, IONA, IXOS, Jikes, jQuery, Library of Congress, Mathworks, Mozilla, Netezza, OpenOffice, Oracle (Solaris, Java), Lawson Software, Leica Geosystems GIS & Mapping LLC, Mandrake Linux, OCLC, Perl, Progress Software, Python, Qt, QNX, Rogue Wave, SAP, Shutterstock, SIL, SPSS, Software AG, SuSE, Symantec, Teradata (NCR), ToolAware, Trend Micro, Twitter, Virage, webMethods, Wikimedia Foundation (Wikipedia), Wine, WMS Gaming, XyEnterprise, Yahoo!, Yelp

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            + <monthWidth type="narrow">
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                <month type="6">জুন</month>
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                <month type="10">অক্টোবৰ</month>
                <month type="11">নৱেম্বৰ</month>
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Internationalized Domain Names (IDNs)

- Internationalized Domain Names (IDNs) enable people around the world to use domain names in local languages and scripts.

- IDNs are formed using characters from different scripts, such as Arabic, Chinese, Cyrillic or Devanagari.

- National Internet Exchange of India (NIXI) is a not for profit organization who is responsible for .IN Registry, managing and operation of .IN country code domain and .भारत IDN domain for India

Internationalized Domain Name (IDN)	Language
.भारत	.Bharat in Devanagari
.ভারত	.Bharat in Bangla
.భారత్	.Bharat in Telugu
.ભારત	.Bharat in Gujarati
.بھارت	.Bharat in Urdu
.இந்தியா	.Bharat in Tamil
.ਭਾਰਤ	.Bharat in Gurumukhi (Punjabi)

Country Code Top Level Domain (ccTLD) for Hindi –

.भारत (xn--h2brj9c)

Website Localization Guidelines

Why you should declare the language of an HTML page ?

- To make it easier for user agents to correctly display the text content of a web page.
- The language specification in the HTML code helps search engines to show the right search results to users from different countries.
- You should also mark language changes within an HTML page to facilitate translation services work.

<html lang = “hn-in">

<meta http-equiv = "content-language" content = “hn-in">

META Tags in HTML page

```
<head>

<meta name="description" content="झारखण्ड भारत का एक राज्य है। राँची इसकी राजधानी है। झारखण्ड की सीमाएँ पूर्व में पश्चिम बंगाल, पश्चिम में उत्तर प्रदेश एवं छत्तीसगढ़, उत्तर में बिहार, और दक्षिण में ओड़िशा को छूती हैं।" />

<meta name="keywords" content="झारखण्ड, झारखण्ड राज्य, झारखण्ड के बारे में" />

</head>
```

<input type="image" name="Smallest1" class="btnResizer" src="../Images/smallestFontM.jpg" alt="अधिक लहान फॉंट" />

<input type="image" name="Small1" class="btnResizer" src="../Images/smallerFontM.jpg" alt="लहान फॉंट" />

<input type="image" name="Medium1" class="btnResizer" src="../Images/mediumFontM.jpg" alt="मध्यम फॉंट" />

<input type="image" name="Large1" class="btnResizer" src="../Images/largerFontM.jpg" alt="मोठा फॉंट" />

मुख्य पृष्ठ | मध्य प्रदेश के बारे में | शासन संरचना | ई-गवर्नेंस

साइटमैप

- मुख्य पृष्ठ
- मध्य प्रदेश के बारे में
  - राज्य प्रोफाइल
  - पर्यटन
  - इतिहास
  - शिक्षा
  - कृषि
  - उद्योग
- शासन संरचना
  - विधान सभा
  - न्यायतंत्र
    - उच्च न्यायालय
  - कार्यकारी अधिकारी
    - माननीय राज्यपाल
    - माननीय मुख्यमंत्री
    - मंत्रालय
    - सचिव
    - संभागीय आयुक्त एवं

मंत्रिमंडळ निर्णय

महत्वाचा शब्द

दिनांकापासून

दिनांकापर्यंत

शोधा पुनर्स्थित करा

एकूण बाबी : ४५९

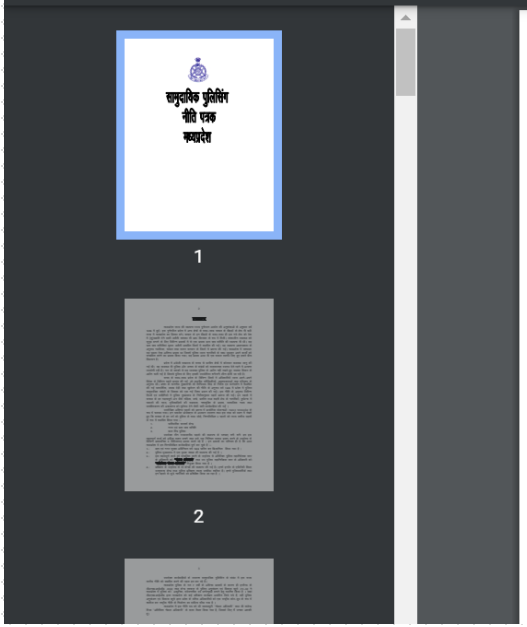
पान क्र. : १ / ४६ Go

१ २ ३ ४ पुढचा > अंतिम >>

क्रमांक	शीर्षक	देवाण दिनांक	आकार (KB)	डाउनलोड
१	मंत्रिमंडळ निर्णय १९ एप्रिल, २०२३ (मंत्रिमंडळ बैठक क्र.३४)	१९-०४-२०२३	११४	
२	मंत्रिमंडळ निर्णय ०५ एप्रिल, २०२३ (मंत्रिमंडळ बैठक क्र.३३)	०५-०४-२०२३	१०७	
३	मंत्रिमंडळ निर्णय २७ फेब्रुवारी, २०२३ ते २५ मार्च, २०२३ (मंत्रिमंडळ बैठक क्र. २८-३२)	२५-०३-२०२३	४८	
४	मंत्रिमंडळ निर्णय २६ फेब्रुवारी, २०२३ (मंत्रिमंडळ बैठक क्र.२७)	२६-०२-२०२३	७८	
५	मंत्रिमंडळ निर्णय २२ फेब्रुवारी, २०२३ (मंत्रिमंडळ बैठक क्र.२६)	२२-०२-२०२३	७०	
६	मंत्रिमंडळ निर्णय १४ फेब्रुवारी, २०२३ (मंत्रिमंडळ बैठक क्र.२५)	१४-०२-२०२३	९७	

MP POLICE DRAFT

1 / 27 | 100%



सामुदायिक पुलिसिंग
नीति पत्रक

ਸੇਵਾ ਕੇਂਦਰਾਂ ਨਾਲ ਸਬੰਧਤ

ਪਤਾ: ਪਲਾਟ ਨੰ. ਡੀ-241, ਉਦਯੋਗਿਕ ਖੇਤਰ, ਫੇਜ਼ - 8ਬੀ, ਸੈਕਟਰ - 74, ਮੋਹਾਲੀ - 160071
ਕਸਟਮਰ ਕੇਅਰ: 1100
ਈਮੇਲ: ਸ਼ਿਕਾਇਤ[dot]sewakendra[at]gmail[dot]com

ਵੈੱਬਸਾਈਟ ਅਤੇ ਸਮੱਗਰੀ ਨਾਲ ਸਬੰਧਤ

ਨਾਮ: ਸ਼. ਗੁਰਲੀਨ ਸਿੰਘ, ਮੈਨੇਜਰ - ਬੀਪੀਆਰ
ਪਤਾ: ਪਲਾਟ ਨੰ. ਡੀ-241, ਇੰਡਸਟਰੀਅਲ ਏਰੀਆ, ਫੇਜ਼-8ਬੀ, ਸੈਕਟਰ-74, ਮੋਹਾਲੀ-160071
ਈਮੇਲ: ਗੁਰਲੀਨ[ਡੌਟ]ਸਿੰਘ[ਏਟ]ਪੰਜਾਬ[ਡੌਟ]ਗੋਵ[ਡੌਟ]ਇਨ

ਨੋਟ: ਇਸ ਈਮੇਲ ਦੀ ਸ਼ਿਕਾਇਤ ਨਿਵਾਰਣ ਲਈ ਨਿਗਰਾਨੀ ਨਹੀਂ ਕੀਤੀ ਜਾਂਦੀ ਹੈ। ਆਪਣੀ ਸ਼ਿਕਾਇਤ ਦਰਜ ਕਰਵਾਉਣ ਲਈ connect.punjab.gov.in ' ਤੇ ਜਾਓ ।

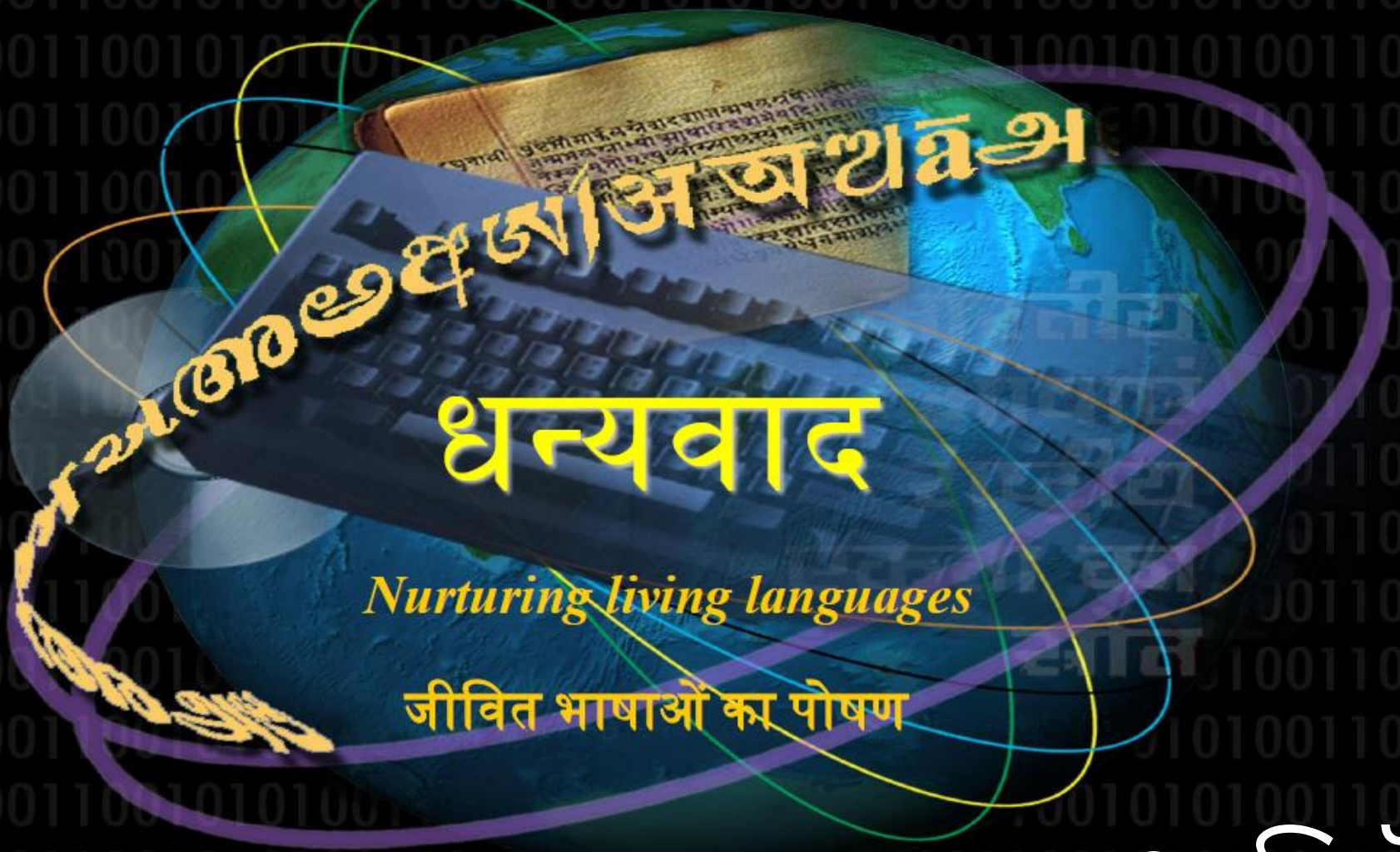
Website Localization Guidelines

- Default Homepage in Local Language
- All Subsequent Web-Pages in Local Language. The subsequent linked pages should be in Local Language. Many of the pages, pdf files linked are in English.
- All Menu titles of the web pages in Local Language.
- All Web-pages should be developed using UTF-8 encoding.
- Lang attributes lang="hn-in" should be specified (replace "hn-in" with local language).
- Meta tags should be defined in Local Language.
- Image ALT/Captions, titles and text should be in Local Language.
- Font for the website should be provided through latest HTML5 Font SRC provisions.
- All Downloads (PDF, DOC, Excel, etc.) should be in Local Language with Unicode compliance.
- All page titles in Local Language.

Website Localization Guidelines

- Numbers should be in Local Language on all pages, Documents, PDFs, Images, etc.
- Contact us information given in Local Language.
- All user defined alert/error/pop-up messages are in Local Language.
- Feedback form should be available in Local Language.
- Typing facility in Local Language should be given for Interactive website.
- Typing should support Enhanced / INSCRIPT layout.
- Onscreen Floating keyboard should be made available.
- Provision for increasing font size is available.
- In-site search support is available for Local Language.
- Website works on Hand held devices.
- Site map of website is in Local Language.

ধন্যবাদ



থেংকিউ