1. **Introduction**

This report presents details of explanation and hypothesis that lead to the construction of our **XSLT 2.0** style sheet as well as rules and constraints to respect to build Html files.

1. **File structure**

The xsl code written in the generate-author-pages.xslt file is organized into 3 parts:

* Global variable declaration
* Main template
* Creating templates

1. Global variable declaration

We have declared two variables:

 contains the list of all authors and editors in the **dblp-exceprt.xml**

This command <xsl:for-each select="\*/\*/author | \*/\*/editor"> searches all nodes of the XML doc that contains authors and editors

contains the subnodes article , proceedings , inproceeding , book, incollection, Phdthesis, mastersthesis, www using <xsl:for-each select="\*/\*">

1. **Main section**

This section contains the main template and uses the following templates to create the HTML file:





**Extracting First Name and Last Name**

The function below extracts the first name and last name of each author and editor and stores the value in the variable $LastName.



**Deleting name duplicates**

This function removes all author or editor names that appear more than once in our

**$AuthorSelection** variable declared above .



**Obtain first letter of Last Name**

We used the substring($LastName, 1, 1) inorder to get the first letter of Last Name.

The substring function passes the string $LastName as parameter,to read a character of the string starting with the first character.

To avoid two duplicate directory (capital and lowercase), all the characters returned by this function will be converted to lowercase using the translate().



1. **Additional templates**

**’AuthorList’ Template**

For a given author or editor, it allows you to select any other author or editor that appears in the same publication.



**’SelectionYear’ Template**

It is used to select and group all the years in which author or the current editor appears. The list of current author or editor is taken in the variable **$SelectAuthors** with the parameter



This template also extracts additional information from the current author like :list of coauthors , list of publications and links to the

**‘CoAuthorSelection’ Template**

Select in alphabetical order the list of co-authors of current author or editor.



1. **How to build the HTML file**

This section details the set of rules used in the project to convert from XML to HTML . We used XPath to gather information from the XML document using expressions and HTML to present our output .

**Generating the HTML page**

A HTML file is generated for every author or editor by iterating the selection of each single author or editor



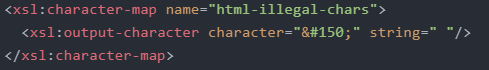
The file name is obtained using 3 variables: **$first\_Letter**, **$Last\_Name** and **$first\_Name**



**Forbidden HTML Character Decimal 150**

We avoided XSL transformation errors with a message of the type "Illegal HTML

Character: Decimal 150", we define a **character-map** for all the illegal character ’decimal 150’ in order to translate them to the ’white’ character.



**Grouping publications**

Publications are grouped by year and sorted in descending order in a table. The **groupby** function arranges publications by year of production. The **sort** function sets them in descending order.



**Sorting co-authors**

The query below selects all nodes after the root that contain an author or editor which corresponds to the current author name.

