ABSTRACT

A Grey Spun is a base material for making fabric to spun. Fabric division of PT X is the division who handles production process for grey spun fabric. PT X fabric division still used manual method for filling the production data and some of the data need to be uploading into SAP (System Application and Product in data processing). The data are the using of base material for production process and the result of production process. The writer's final assignment task for PT X will make an application web base for the problem above especially for grey spun fabric production. With this application, we can upload and download the data to/from SAP more easy.

Keyword:

- **Production process**
- **Web application**
- **Download file**
- **Textile company**

DAFTAR ISI

PERNYATAAN ORISINALITAS LAPORAN PENELITIAN..... i
PERNYATAAN PUBLIKASI LAPORAN PENELITIAN..... ii
KATA PENGANTAR iii
ABSTRACT v
DAFTAR ISI vi
DAFTAR GAMBAR x
DAFTAR TABEL xiv
DAFTAR LAMPIRAN xvii
BAB I PENDAHULUAN..... 1
I.1 Latar Belakang..... 1
I.2 Perumusan Masalah 2
I.3 Tujuan..... 2
I.4 Batasan Masalah 2
I.5 Sistematika Penulisan..... 4
BAB II LANDASAN TEORI 5
II.1 Teori Penunjang..... 5
II.1.1 Entity Relationship Diagram (ERD) 5
II.1.1.1 Mapping Cardinalities..... 8
II.1.1.2 Participation Constraints 9
II.1.1.3 Jenis-jenis Key 10
II.1.1.4 Weak Entity dan Strong Entity..... 11
II.1.2 DFD 11
II.1.2.1 Context Diagram dan DFD Levelled 13
II.1.2.2 Komponen DFD 14

II.1.2.3 Alur Data Konsep 19
II.1.2.4 Aturan Dalam DFD 20
II.1.3 Kamus Data 21
II.1.4 Process Specification (PSPEC) 23
II.2 Program Penunjang 24
II.2.1 Program Editor HTML 24
II.2.2 Browser 25
II.2.2.1 Mozila Firefox 26
II.3 Database Penunjang 26
II.3.1 MySQL 27
II.3.1.1 Pengenalan MySQL 27
II.3.1.2 Kelebihan MySQL 28
II.4 Bahasa Pemrograman 30
II.4.1 HTML 30
II.4.1.1 Perintah dalam HTML 32
II.4.2 PHP 36
II.4.2.1 Kelebihan PHP 38
II.4.2.2 Kelemahan PHP 41
II.4.2.3 Aturan Dasar PHP 42
II.4.3 AJAX 43
II.4.3.1 Kelemahan AJAX 44
II.4.3.2 Konsep Kerja AJAX 45
II.4.3.3 Pembuatan AJAX 46
II.4.4 JavaScript 48
II.4.5 CSS 49
II.5 Flowchart 51

II.5.1 Simbol Flowchart 53
II.5.1.1 Simbol Terminal (Terminator) 54
BAB III ANALISIS 58
III.1 Profil PT X Group 58
III.1.1 Sejarah PT X 60
III.1.2 Perusahaan-perusahaan PT X 60
III.1.3 Visi Perusahaan 61
III.1.4 Misi Perusahaan 62
III.2 Profil PT X Unit Kain 62
III.3 Proses Bisnis 63
III.3.1 Proses Bisnis Weaving Spun 63
III.3.2 Proses Bisnis Aplikasi 65
III.4 Perancangan Sistem 69
III.4.1 Entity Relationship Diagram (ERD) 69
III.4.2 Data Flow Diagram (DFD) 79
III.4.3 Kamus Data 92
III.4.4 Process Specification (PSPEC) 106
III.4.5 Sketsa User Interface (UI) 121
BAB IV HASIL TERCAPAI 141
IV.1 Login 141
IV.2 Create PrO 142
IV.3 Cancel Transaksi 143
IV.4 Transaksi 145
IV.4.1 Transaksi Goods Receipt Persiapan Sizing 147
IV.4.2 Transaksi Goods Receipt Weaving AJL 149
IV.4.3 Transaksi Goods Issue Persiapan Sizing 151

IV.4.4 Transaksi Goods Issue Weaving AJL 152
IV.5 Transaksi Transfer Grey Spun 154
IV.6 Surat Pengantar 156
IV.7 Edit Transaksi 157
IV.7.1 Edit Transaksi Goods Receipt Persiapan Sizing 159
IV.7.2 Edit Transaksi Goods Receipt Weaving AJL 160
IV.7.3 Edit Transaksi Goods Issue Persiapan Sizing 161
IV.7.4 Edit Transaksi Goods Issue Weaving AJL 161
IV.7.5 Edit Transaksi Transfer Grey Spun 162
IV.8 Report List Transaksi 163
IV.9 Report Current Stock 165
IV.10 Report Goods Issue Produksi 166
IV.11 Report Cacat 168
IV.12 Report Inspection Production 169
IV.13 Report Inspection Cacat 170
BAB V EVALUASI 171
BAB VI PENUTUP 175
VI.1 Kesimpulan 175
VI.2 Saran 175
DAFTAR PUSTAKA xviiii

DAFTAR GAMBAR

Gambar 2.1 Simbol Entitas 5
Gambar 2.2 Simbol Relasi 6
Gambar 2.3 Simbol Atribut Komposit 6
Gambar 2.4 Simbol Atribut Komposit Hirarki 6
Gambar 2.5 Simbol Atribut Multivalued 7
Gambar 2.6 Simbol Atribut Derived 7
Gambar 2.7 Simbol Garis Penghubung 7
Gambar 2.8 One to One (1-1) 8
Gambar 2.9 One to Many (N-1) 8
Gambar 2.10 Many to One (N-1) 9
Gambar 2.11 Many to Many (N-N) 9
Gambar 2.12 Simbol Participation Constraints 9
Gambar 2.13 Himpunan Entitas Lemah 11
Gambar 2.14 Entitas Eksternal Gane –Sarson dan DeMarco –Yordan ... 15
Gambar 2.15 Terminator Sumber 15
Gambar 2.16 Terminator Tujuan 15
Gambar 2.17 Terminator Tujuan dan Sumber 16
Gambar 2.18 Proses Gane –Sarson 16
Gambar 2.19 Proses DeMarco –Yordan 17
Gambar 2.20 Empat Kemungkinan pada Komponen Proses 17
Gambar 2.21 Data Store Gane –Sarson 18
Gambar 2.22 Data Store DeMarco –Yordan 18
Gambar 2.23 Alur Data pada Proses dan Data Store 18
Gambar 2.24 Alur Data Gane –Sarson dan DeMarco –Yordan 19
Gambar 2.25 Paket Data 19
Gambar 2.26 Arus Data Menyebar 19
Gambar 2.27 Arus Data Mengumpul 20
Gambar 2.28 Arus sumber dan tujuan 20

Gambar 2.29 Proses pada Request HTML Murni 37
Gambar 2.30 Proses pada Request PHP 37
Gambar 2.31 Mekanisme PHP dan Database 38
Gambar 2.32 Siklus I-P-O 53
Gambar 2.33 Simbol Flowchart 54
Gambar 2.34 Simbol Terminal START dan END 54
Gambar 2.35 Simbol Dokumen 55
Gambar 2.36 Simbol Multi Dokumen 55
Gambar 2.37 Simbol Proses Manual 55
Gambar 2.38 Simbol Proses Tidak Manual 56
Gambar 2.39 Simbol Input / Output 56
Gambar 2.40 Simbol Percabangan 56
Gambar 2.41 Simbol Aliran Proses 57
Gambar 3.1 Alur Proses Produksi PT X 58
Gambar 3.2 Struktur Organisasi PT X Unit Kain 62
Gambar 3.3 Proses Global Produksi Weaving Spun 64
Gambar 3.4 Alur Program 68
Gambar 3.5 ERD Program 71
Gambar 3.6 ERD Temporary Program 72
Gambar 3.7 Context Diagram 79
Gambar 3.8 DFD Level 1 80
Gambar 3.9 DFD Level 2 Proses Transaksi 81
Gambar 3.10 Level 3 Proses Transaksi Goods Receipt 81
Gambar 3.11 Level 3 Proses Transaksi Goods Issue 82
Gambar 3.12 DFD Level 2 Proses 3 83
Gambar 3.13 Level 2 Proses Report 84
Gambar 3.14 Level 3 Proses List Transaksi 85
Gambar 3.15 Level 3 Proses Current Stock 86
Gambar 3.16 Level 3 Proses Goods Issue 87
Gambar 3.17 Level 3 Proses Cacat 88
Gambar 3.18 Level 3 Proses Inspection Production 89

Gambar 3.19 Level 3 Proses Inspection Cacat 90
Gambar 4.1 Menu Login 141
Gambar 4.2 Menu Pilihan 142
Gambar 4.3 Create PrO 143
Gambar 4.4 Proses Create PrO 143
Gambar 4.5 Cancel Transaksi 144
Gambar 4.6 Move Type Cancel Transaksi 144
Gambar 4.7 Cancel Transaksi Goods Receipt 145
Gambar 4.8 Header Transaksi 146
Gambar 4.9 Tanggal Transaksi 146
Gambar 4.10 Storage Location Transaksi 146
Gambar 4.11 Move Type Transaksi 147
Gambar 4.12 Process Transaksi 147
Gambar 4.13 Transaksi Goods Receipt Persiapan Sizing 148
Gambar 4.14 Design Transaksi Goods Receipt Persiapan Sizing 148
Gambar 4.15 Transaksi Goods Receipt Weaving AJL 149
Gambar 4.16 Design Transaksi Goods Receipt Weaving AJL 150
Gambar 4.17 Grade Transaksi 150
Gambar 4.18 Cacat Kain grey 150
Gambar 4.19 Transaksi Goods Issue Persiapan Sizing 151
Gambar 4.20 Stock Material Transaksi Good Issue Persiapan Sizing 152
Gambar 4.21 Transaksi Goods Issue Weaving AJL 153
Gambar 4.22 Design Transaksi Goods Issue Weaving AJL 153
Gambar 4.23 Detail Transaksi Good Issue Weaving AJL 154
Gambar 4.24 Transaksi Transfer Grey Spun 155
Gambar 4.25 Detail Transfer Grey Spun 156
Gambar 4.26 Input Tampilan Surat Pengantar 157
Gambar 4.27 Surat Pengantar Kain Grey Spun 157
Gambar 4.28 Input Edit Transaksi 158
Gambar 4.29 Data Edit Transaksi 159
Gambar 4.30 Edit Transaksi Goods Receipt Persiapan Sizing 159

Gambar 4.31 Edit Transaksi Goods Receipt Weaving AJL 160
Gambar 4.32 Edit Transaksi Good Issue Persiapan Sizing 161
Gambar 4.33 Edit Transaksi Goods Issue Weaving AJL 162
Gambar 4.34 Edit Transaksi Transfer Grey Spun 163
Gambar 4.35 Input Report List Transaksi 164
Gambar 4.36 Report dan Download List Transaksi 165
Gambar 4.37 Menu Dowload Report 165
Gambar 4.38 Input Report Current Stock 166
Gambar 4.39 Report dan Download Current Stock 166
Gambar 4.40 Input Report Goods Issue Produksi 167
Gambar 4.41 Report dan Download Goods Issue Produksi 167
Gambar 4.42 Input Report Cacat 168
Gambar 4.43 Report dan Download Cacat 168
Gambar 4.44 Input Report Inspection Production 169
Gambar 4.45 Report dan Download Inspection Production 169
Gambar 4.46 Input Report Inspection Cacat 170
Gambar 4.47 Report dan Download Inspection Cacat 170

DAFTAR TABEL

Tabel 2.1 Notasi Kamus Data 23
Tabel 2.2 Method XMLHttpRequest 46
Tabel 2.3 Properti XMLHttpRequest 47
Tabel 2.4 Properti XMLHttpRequest Ready State 47
Tabel 3.1 Tabel Produksi PT X 61
Tabel 3.2 Entity user 73
Tabel 3.3 Entity material 73
Tabel 3.4 Entity design 73
Tabel 3.5 Entity storageloc 74
Tabel 3.6 Entity mastercacat 74
Tabel 3.7 Entity R_design_material 74
Tabel 3.8 Entity masterpropersiapan 74
Tabel 3.9 Entity transactheader 74
Tabel 3.10 Entity transactdetail 75
Tabel 3.11 Entity materialstock (Database sapwebsp) 75
Tabel 3.12 Entity temptransactlist 75
Tabel 3.13 Entity tempstock 76
Tabel 3.14 Entity tempgoodissue 76
Tabel 3.15 Entity tempcacat 77
Tabel 3.16 Entity tempinspecproduction 77
Tabel 3.17 Entity tempcacatinspecting 78
Tabel 3.18 Kamus Data users 92
Tabel 3.19 Kamus Data material 93
Tabel 3.20 Kamus Data design 93
Tabel 3.21 Kamus Data storageloc 95
Tabel 3.22 Kamus Data mastercacat 95
Tabel 3.23 Kamus Data R_design_material 95
Tabel 3.24 Kamus Data masterpropersiapan 96
Tabel 3.25 Kamus Data transactheader 96
Tabel 3.26 Kamus Data transactdetail 97
Tabel 3.27 Kamus Data Masterstock 99
Tabel 3.28 Kamus Data temptransactlist 99

Tabel 3.29 Kamus Data Tempstock 100
Tabel 3.30 Kamus DataTempgoodissue 101
Tabel 3.31 Kamus Data tempcacat 102
Tabel 3.32 Kamus Data tempinspecproduction 103
Tabel 3.33 Kamus Data tempcacatinspecting 104
Tabel 3.34 PSPEC DFD Proses Login 106
Tabel 3.35 PSPEC DFD Proses Create PrO 107
Tabel 3.36 PSPEC DFD Proses Cancel Transaksi 107
Tabel 3.37 PSPEC DFD Proses Transaksi Goods Receipt Persiapan Sizing . 107
Tabel 3.38 PSPEC DFD Proses Transaksi Goods Receipt Weaving AJL 108
Tabel 3.39 PSPEC DFD Proses Transaksi Goods Issue Persiapan Sizing 109
Tabel 3.40 PSPEC DFD Proses Transaksi Goods Issue Weaving AJL 110
Tabel 3.41 PSPEC DFD Proses Transaksi Transfer Grey Spun 111
Tabel 3.42 PSPEC DFD Proses Membuat Surat Pengantar 112
Tabel 3.43 PSPEC DFD Proses Edit Transaksi Goods Receipt Persiapan Sizing 112
Tabel 3.44 PSPEC DFD Proses Edit Transaksi Goods Receipt Weaving AJL 113
Tabel 3.45 PSPEC DFD Proses Edit Transaksi Goods Issue Persiapan Sizing 113
Tabel 3.46 PSPEC DFD Proses Edit Transaksi Goods Issue Weaving AJL.... 114
Tabel 3.47 PSPEC DFD Proses Edit Transaksi Transfer Grey Spun 114
Tabel 3.48 PSPEC DFD Proses Input Detail Transaksi List 115
Tabel 3.49 PSPEC DFD Proses Report Transaksi List 115
Tabel 3.50 PSPEC DFD Proses Download Report Transaksi List 115
Tabel 3.51 PSPEC DFD Proses Input Detail Current Stock 116
Tabel 3.52 PSPEC DFD Proses Report Current Stock 116
Tabel 3.53 PSPEC DFD Proses Download Report Current Stock 116
Tabel 3.54 PSPEC DFD Proses Input Detail Report Goods Issue 117
Tabel 3.55 PSPEC DFD Proses Report Goods Issue 117
Tabel 3.56 PSPEC DFD Proses Download Report Goods Issue 117
Tabel 3.57 PSPEC DFD Proses Input Detail Report Cacat 118
Tabel 3.58 PSPEC DFD Proses Report Cacat 118
Tabel 3.59 PSPEC DFD Proses Download Report Cacat 118
Tabel 3.60 PSPEC DFD Proses Input Detail Inspection Production 119
Tabel 3.61 PSPEC DFD Proses Report Inspection Production 119
Tabel 3.62 PSPEC DFD Proses Download Report Inspection Production 119

Tabel 3.63 PSPEC DFD Proses Input Detail Inspection Cacat 120
Tabel 3.64 PSPEC DFD Proses Report Inspection Cacat..... 120
Tabel 3.65 PSPEC DFD Proses Download Report Inspection Cacat..... 120
Tabel 3.66 Sketsa User Interface..... 121
Tabel 5.1 Evaluasi Validasi..... 171

DAFTAR LAMPIRAN

LAMPIRAN A DATA A-1
LAMPIRAN B SOURCE CODE..... B-1
LAMPIRAN C RIWAYAT HIDUP..... C-1