

## **ABSTRACT**

PT. X is a textile company. To make cloth, PT. X must process from raw material to Greige and then be Cloth (Material Finish), some processes must be done, they are Twisting, Sizing, and Weaving. Each process has its own production cost.

Weaving Cost is calculated from which machine of loom that has been chosen for make Greige. So weaving cost can be calculated from weaving loom machine cost. Twisting Cost is calculated if the yarn is twisting before further processed in the weaving machine. Twisting cost is thus, the quantity of the yarn times the twisting cost. Sizing Cost is calculated if the yarn is using sizing. Sizing have 2 type, that is filament sizing and spun sizing. The total yarn cost can be calculated by multiplying the quantity of the yarn process and the sizing cost.

Based on the processes process above, the company need an application, that: can calculate how much cost that the company has to pay for each type of greige, can count how much cost that the company has to pay for each type of material finish, and can calculate how much cost that the company has to pay for each type of material finish per metre.

Keyword: textile material cost, production cost, twisting, sizing, weaving.

## DAFTAR ISI

|                                                            |     |
|------------------------------------------------------------|-----|
| LEMBAR PENGESAHAN TUGAS AKHIR .....                        | ii  |
| SURAT PERNYATAAN ORISINALITAS KARYA .....                  | iii |
| PERNYATAAN PUBLIKASI LAPORAN PENELITIAN.....               | iv  |
| KATA PENGANTAR .....                                       | v   |
| ABSTRACT .....                                             | vi  |
| DAFTAR ISI.....                                            | vii |
| DAFTAR TABEL.....                                          | xi  |
| BAB I PENDAHULUAN.....                                     | 14  |
| I.1 Latar Belakang.....                                    | 14  |
| I.2 Perumusan Masalah .....                                | 15  |
| I.3 Tujuan.....                                            | 15  |
| I.4 Batasan Masalah .....                                  | 16  |
| I.5 Sistematika Penulisan.....                             | 17  |
| BAB II LANDASAN TEORI.....                                 | 19  |
| II.1 PHP .....                                             | 19  |
| II.1.1 <i>Sejarah PHP</i> .....                            | 19  |
| <i>Hello World</i> .....                                   | 21  |
| <i>Contoh program yang lebih kompleks</i> .....            | 21  |
| II.2 .....                                                 | 22  |
| II.3 AJAX.....                                             | 22  |
| II.4 <i>Structured Query Language (SQL)</i> .....          | 24  |
| II.4.1 Standarisasi terhadap SQL.....                      | 24  |
| II.4.2 Tabel <i>database</i> SQL.....                      | 24  |
| II.4.3 <i>Query SQL</i> .....                              | 25  |
| II.4.4 <i>SQL - Data Manipulation Language (DML)</i> ..... | 25  |
| II.4.5 <i>SQL - Data Definition Language (DDL)</i> .....   | 26  |
| II.5 <i>Data Flow Diagram (DFD)</i> .....                  | 26  |
| II.6 ERD .....                                             | 28  |
| II.7 KAMUS DATA.....                                       | 28  |
| BAB III ANALISIS DAN PERANCANGAN .....                     | 30  |
| III.1 PROSES BISNIS .....                                  | 30  |
| III.2 Proses Bisnis Aplikasi .....                         | 32  |
| III.3 Perancangan Sistem.....                              | 35  |
| III.3.1 <i>Entity Relationship Diagram (ERD)</i> .....     | 36  |
| III.3.2 <i>Data Flow Diagram (DFD)</i> .....               | 42  |
| III.3.3 Kamus Data.....                                    | 54  |
| III.3.4 <i>Process Specification (PSPEC)</i> .....         | 75  |
| BAB IV HASIL TERCAPAI.....                                 | 83  |
| IV.1 Master Greige .....                                   | 83  |
| IV.1.1 Create Master Greige .....                          | 84  |
| IV.1.2 Edit Master Greige.....                             | 87  |
| IV.2 Master Benang.....                                    | 88  |
| IV.2.1 Create Master Benang.....                           | 89  |
| IV.2.2 Edit Master Benang .....                            | 91  |
| IV.2.3 Delete Master Benang .....                          | 92  |
| IV.3 Menu Set Default Cost.....                            | 92  |
| IV.4 Menu Cost Faktor .....                                | 93  |
| IV.5 Transaksi Grey.....                                   | 95  |

|                                     |     |
|-------------------------------------|-----|
| IV.6 Report Costing .....           | 97  |
| IV.7 Report Costing per Meter ..... | 99  |
| IV.8 Report Benang .....            | 99  |
| BAB V EVALUASI .....                | 101 |
| BAB VI PENUTUP .....                | 103 |
| VI.1 Kesimpulan .....               | 103 |
| VI.2 Saran-saran .....              | 104 |
| DAFTAR PUSTAKA.....                 | xii |

## DAFTAR GAMBAR

|                                           |    |
|-------------------------------------------|----|
| Gambar II-1. ERD .....                    | 28 |
| Gambar II-2. Kamus Data .....             | 29 |
| Gambar III-1 Proses Bisnis .....          | 33 |
| Gambar III-2. Proses Bisnis Aplikasi..... | 35 |
| Gambar III-3. ERD .....                   | 36 |
| Gambar III-4 DFD Level 0 .....            | 42 |
| Gambar III-5 DFD Level 1 .....            | 43 |
| Gambar III-6 DFD Level 2 Proses 1.....    | 44 |
| Gambar III-7 DFD Level 2 Proses 2.....    | 45 |
| Gambar III-8 DFD Level 2 Proses 3.....    | 46 |
| Gambar III-9 DFD Level 2 Proses 4.....    | 47 |
| Gambar III-10 Level 2 Proses 5 .....      | 47 |
| Gambar III-11 DFD Level 2 Proses 6.....   | 48 |
| Gambar III-12 DFD Level 2 Proses 7 .....  | 49 |
| Gambar III-13 DFD Level 3 Proses 7.1..... | 50 |
| Gambar III-14 DFD Level 3 Proses 7.2..... | 51 |
| Gambar III-15 DFD Level 3 Proses 7.3..... | 52 |
| Gambar III-16 DFD Level 3 Proses 7.4..... | 53 |
| Gambar IV-1 Tampilan Menu.....            | 83 |
| Gambar IV-2 Tampilan Master Greige .....  | 84 |
| Gambar IV-3 Periode .....                 | 85 |
| Gambar IV-4 Grey dan Grade.....           | 85 |
| Gambar IV-5 loom.....                     | 85 |
| Gambar IV-6 Lusi dan Pakan.....           | 86 |
| Gambar IV-7 Proses .....                  | 86 |
| Gambar IV-8 Proses2 .....                 | 87 |
| Gambar IV-9 Edit Master Grey.....         | 88 |
| Gambar IV-10 Master Yarn .....            | 89 |
| Gambar IV-11 Create Master Benang .....   | 89 |
| Gambar IV-12 List Benang .....            | 90 |

|                                                                                                                                                                                                              |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Gambar IV-13 Auto Edit.....                                                                                                                                                                                  | 91  |
| Gambar IV-14 Konfirmasi benang.....                                                                                                                                                                          | 92  |
| Gambar IV-15 Default Cost.....                                                                                                                                                                               | 93  |
| Gambar IV-16 Cost Faktor .....                                                                                                                                                                               | 94  |
| Gambar IV-17 Transaksi Grey .....                                                                                                                                                                            | 95  |
| Gambar IV-18 Tanggal Javascript .....                                                                                                                                                                        | 95  |
| Gambar IV-19 Alert Transaksi Grey .....                                                                                                                                                                      | 96  |
| Gambar IV-20 Grade .....                                                                                                                                                                                     | 96  |
| Gambar IV-21 Qty Transact.....                                                                                                                                                                               | 97  |
| Gambar IV-22 Report Costing.....                                                                                                                                                                             | 97  |
| Gambar IV-23 Costing Report.....                                                                                                                                                                             | 98  |
| Gambar IV-24 Report Costing per Meter .....                                                                                                                                                                  | 99  |
| Gambar IV-25 Report Benang .....                                                                                                                                                                             | 100 |
| ▪ Maksudnya perusahaan tidak perlu menghitung <i>weavingcosting</i> secara manual lagi. Perusahaan tinggal menginput data tiap hari dan bisa langsung mendapat hasil costing report. Lihat Gambar IV-1. .... | 103 |
| ▪ Maksudnya tujuan dari aplikasi untuk melakukan perhitungan bukan sampai perhitungan costing saja, tapi hingga perhitungan biaya <i>costing</i> hingga permeter. Lihat Gambar IV-2.....                     | 103 |
| ▪ Perhitungan total biaya proses dan biaya proses permeter dalam pembuatan suatu kain dapat dilakukan. Seperti pada <i>report costing</i> . Lihat Gambar IV-3. ....                                          | 103 |

## DAFTAR TABEL

|                                            |    |
|--------------------------------------------|----|
| Tabel III-1. Entity costpermeter .....     | 37 |
| Tabel III-2. Entity loom .....             | 37 |
| Tabel III-3. Entity mastergrey .....       | 37 |
| Tabel III-4. Entity mastersizing .....     | 39 |
| Tabel III-5. Entity mastertwist .....      | 39 |
| Tabel III-6. Entity masterweaving .....    | 40 |
| Tabel III-7. Entity masteryarncost .....   | 41 |
| Tabel III-8. materialfinish .....          | 41 |
| Tabel III-9. Entity transactgrey .....     | 41 |
| Tabel III-10. Entity urd .....             | 42 |
| Tabel III-11. Kamus Data P1 .....          | 54 |
| Tabel III-12. Kamus Data P2 .....          | 54 |
| Tabel III-13. Kamus Data P3 .....          | 55 |
| Tabel III-14. Kamus Data P4 .....          | 55 |
| Tabel III-15. Kamus Data L1 .....          | 55 |
| Tabel III-16. Kamus Data L2 .....          | 56 |
| Tabel III-17. Kamus Data L3 .....          | 56 |
| Tabel III-18. Kamus Data GREY .....        | 56 |
| Tabel III-19 Kamus Data PERIODE .....      | 57 |
| Tabel III-20 Kamus Data PICK .....         | 57 |
| Tabel III-21 Kamus Data LOOM .....         | 57 |
| Tabel III-22 Kamus Data Grade .....        | 58 |
| Tabel III-23 Kamus Data Informasi .....    | 58 |
| Tabel III-24 Kamus Data TWISTINGCOST ..... | 58 |
| Tabel III-25 Kamus Data WEAVINGCOST .....  | 59 |
| Tabel III-26 Kamus Data TWISTINGCOST ..... | 60 |
| Tabel III-27 Kamus Data SIZINGCOST .....   | 60 |
| Tabel III-28 Kamus Data TWISTINGCOST ..... | 61 |
| Tabel III-29 Kamus Data Periode .....      | 61 |

|                                                                       |           |
|-----------------------------------------------------------------------|-----------|
| Tabel III-30 Kamus Data USD.....                                      | 62        |
| Tabel III-31 Kamus Data COSTCATAGORY .....                            | 62        |
| Tabel III-32 Kamus Data ENTRY DATE .....                              | 63        |
| Tabel III-33 Kamus Data QTY.....                                      | 63        |
| Tabel III-34 Kamus Data COST/KG .....                                 | 63        |
| Tabel III-35 Kamus Data KODE BENANG.....                              | 64        |
| Tabel III-36 Kamus Data Data_Grey.....                                | 64        |
| Tabel III-37 Kamus Data TYPELOOM .....                                | 66        |
| Tabel III-38 Kamus Data Informasi .....                               | 66        |
| Tabel III-39 Kamus Data IDLOOM.....                                   | 66        |
| Tabel III-40 Kamus Data Data_Default_Cost.....                        | 67        |
| Tabel III-41 Kamus Data Unit.....                                     | 68        |
| Tabel III-42 Kamus data QTYGREY .....                                 | 68        |
| Tabel III-43 Kamus Data YARN .....                                    | 68        |
| Tabel III-44 Kamus Data COSTCATAGORY .....                            | 69        |
| III-45 Kamus Data Storage masterweaving .....                         | 69        |
| Tabel III-46. Kamus Data loom .....                                   | 70        |
| Tabel III-47. Kamus Data mastersizing .....                           | 70        |
| Tabel III-48. Kamus Data mastertwist .....                            | 70        |
| Tabel III-49. Kamus Data masteryarncost.....                          | 71        |
| Tabel III-50. Kamus Data mastergrey .....                             | 71        |
| Tabel III-51. Kamus Data mastergrey (cont'd) .....                    | 72        |
| Tabel III-52. Kamus Data mastergrey .....                             | 73        |
| Tabel III-53. Kamus Data materialfinish .....                         | 73        |
| Tabel III-54. Kamus Data transactgrey .....                           | 73        |
| <b>Tabel III-56. Kamus Data urd .....</b>                             | <b>74</b> |
| Tabel III-55. Kamus Data transactgrey .....                           | 74        |
| Tabel III-57. PSPEC DFD Level 2 Proses 1.1 (Create Grey).....         | 75        |
| Tabel III-58. PSPEC DFD Level 2 Proses 1.2 (Edit Grey) .....          | 76        |
| Tabel III-59 PSPEC DFD Level 2 Proses 2.1 (Create Default Cost) ..... | 76        |
| Tabel III-60. PSPEC DFD Level 2 Proses 2.2 (Edit Default Cost).....   | 77        |
| Tabel III-61. PFPEC DFD Level 2 Proses 3.1 (Create Cost Faktor) ..... | 77        |

|                                                                                  |    |
|----------------------------------------------------------------------------------|----|
| Tabel III-62 PFPEC DFD Level 2 Proses 3.2 (Ereate Cost Faktor).....              | 78 |
| Tabel III-63. PFPEC DFD Level 2 Proses 4.1 (Create Transact Grey) ....           | 78 |
| Tabel III-64. PFPEC DFD Level 2 Proses 5.1 (Create Master Benang)...             | 79 |
| Tabel III-65. PFPEC DFD Level 2 Proses 5.2 (Edit Master Benang) .....            | 79 |
| Tabel III-66. PFPEC DFD Level 2 Proses 5.3 (Delete Master Benang) ...            | 80 |
| Tabel III-67. PFPEC DFD Level 2 Proses 6.1 (Create Material Finish)....          | 80 |
| Tabel III-68 PFPEC DFD Level 2 Proses 7.1.1 (Report Costing).....                | 81 |
| Tabel III-69 PFPEC DFD Level 2 Proses 7.2.1 (Report Costing per Meter )<br>..... | 81 |
| Tabel III-70 PFPEC DFD Level 2 Proses 7.2.1 (Report Benang).....                 | 82 |