SE-45-03

# TUGAS BESAR STRUKTUR DATA

Muhammad Zaidan Rafif (1302213072)
Kamal MAluaazka sidhqi
(1302210032)

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STD

SE-45-03

# STUDI KASUS
# EVENT SPONSORSHIP

**Terdapat sebuah event yang akan diselenggarakan dan membutuhkan dana dari beberapa Sponsor, dimana jumlah dana sponsorship dari sponsor ke event itu disebut relasi, besar dana relasi yang diberikan oleh pihak sponsor ke event tersebut dibagi menjadi beberapa kategori yaitu Gold, Silver, Bronze, dan lain-lain.**

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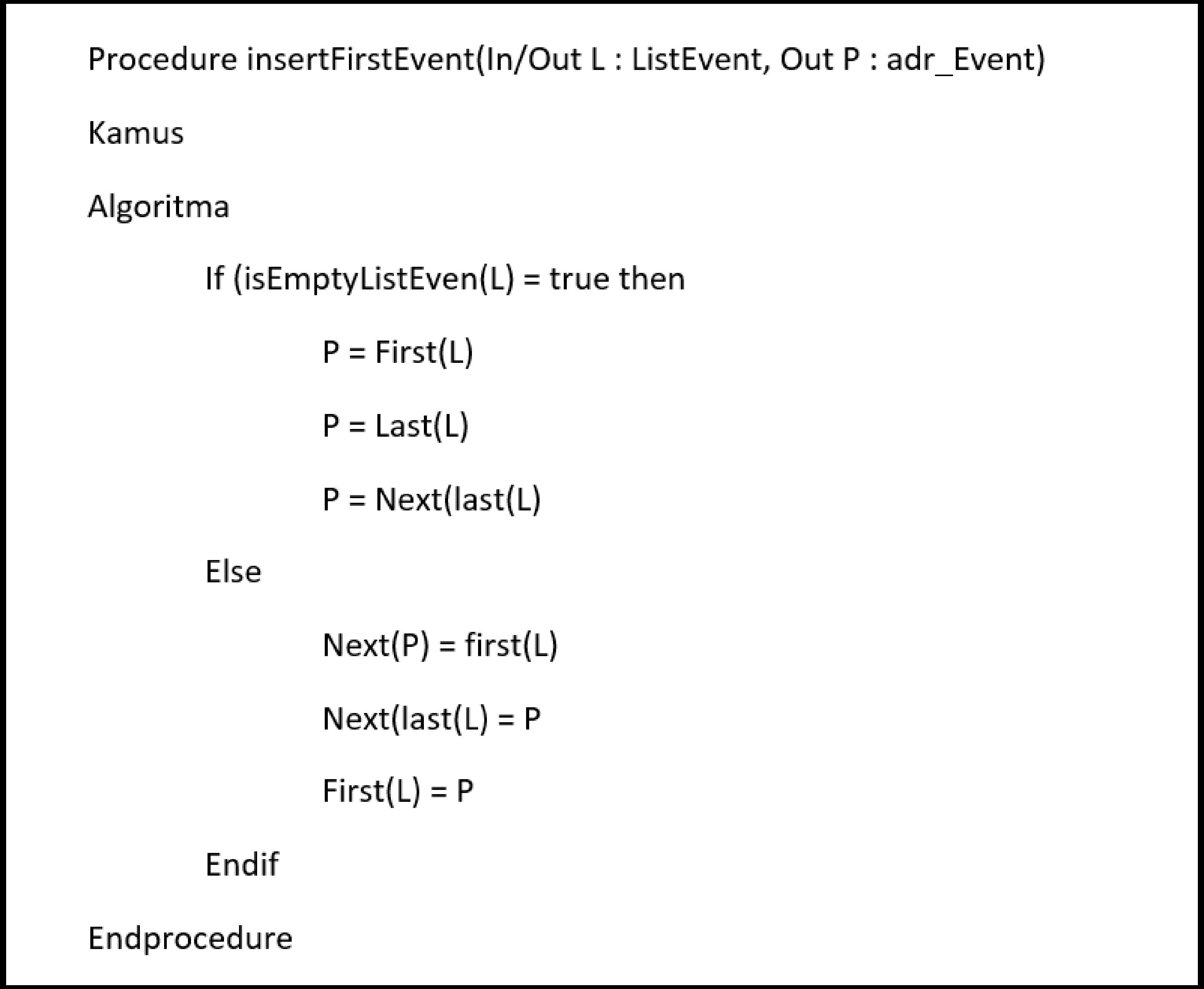
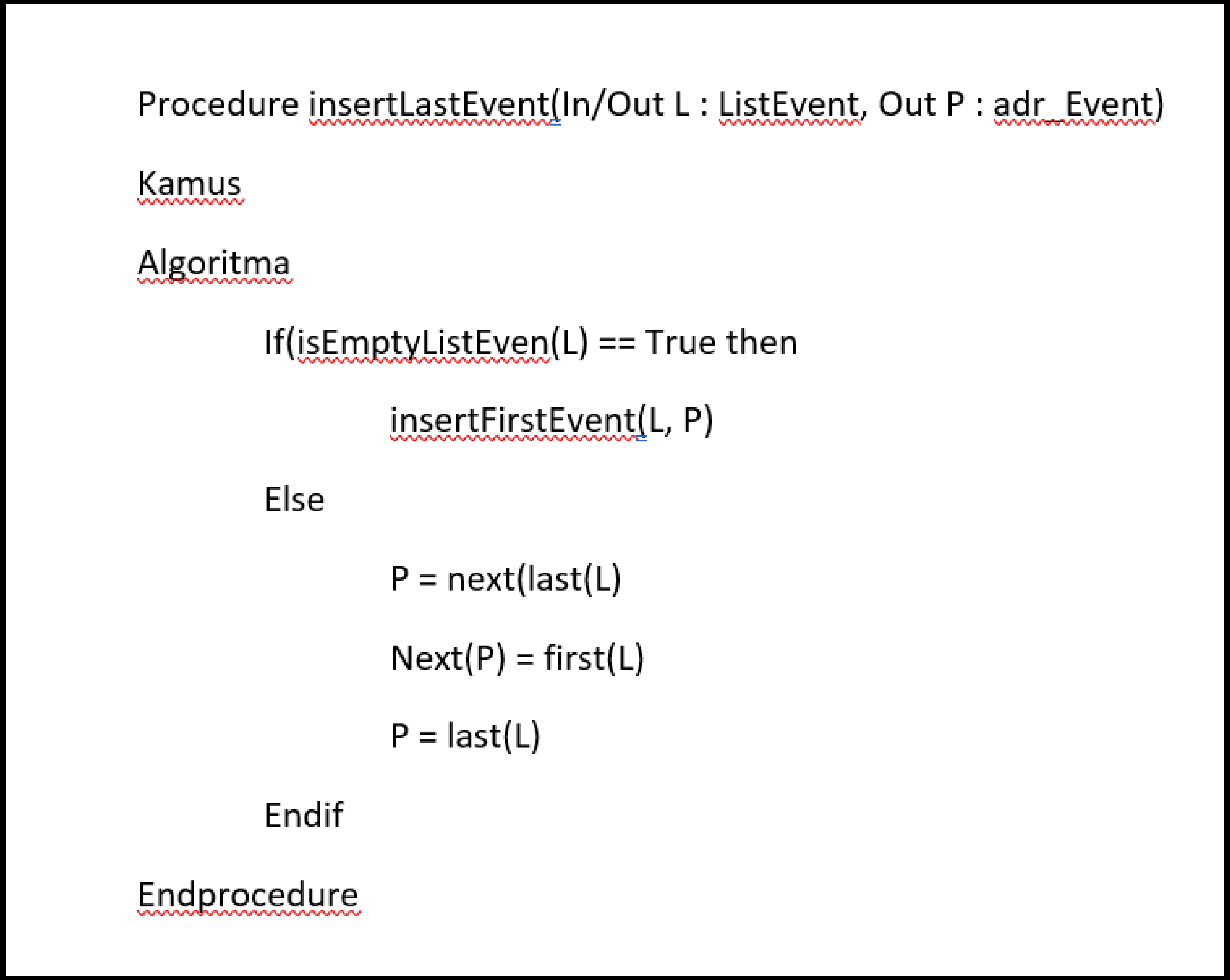
SE-45-03

# PROCEDURE INSERT FIRST EVENT & INSERT LAST EVENT



```
Procedure insertFirstEvent(In/Out L : ListEvent, Out P : adr_Event)
Kamus
Algoritma
        If (isEmptyListEven(L) = true then
                P = First(L)
                P = Last(L)
                P = Next(last(L)
        Else
                Next(P) = first(L)
                Next(last(L) = P
                First(L) = P
        Endif
Endprocedure
```

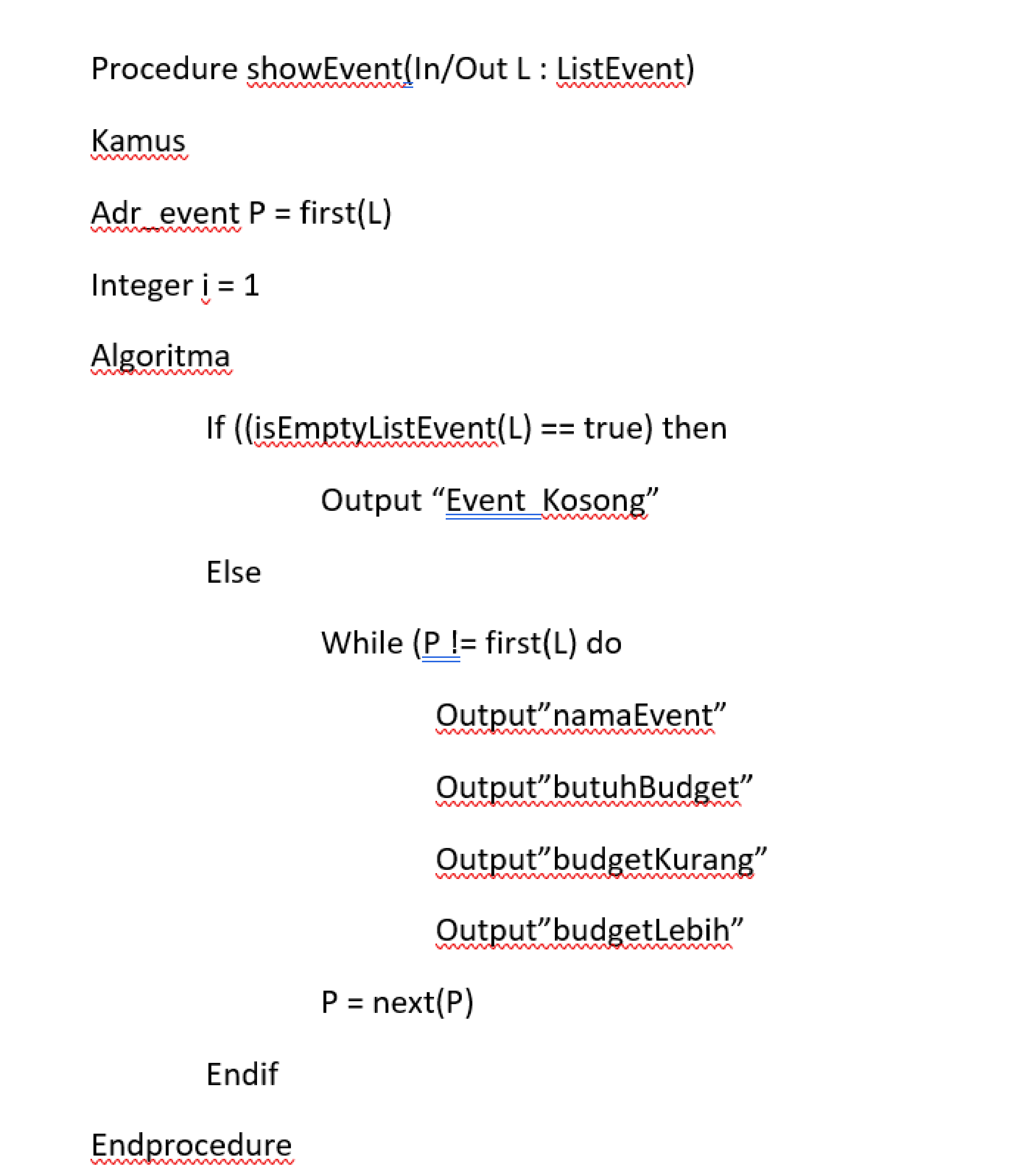


```
Procedure insertLastEvent(In/Out L : ListEvent, Out P : adr_Event)
Kamus
Algoritma
        If(isEmptyListEven(L) == True then
                insertFirstEvent(L, P)
        Else
                P = next(last(L)
                Next(P) = first(L)
                P = last(L)
        Endif
Endprocedure
```

—2020

Coding

# PROCEDURE SHOW EVENT

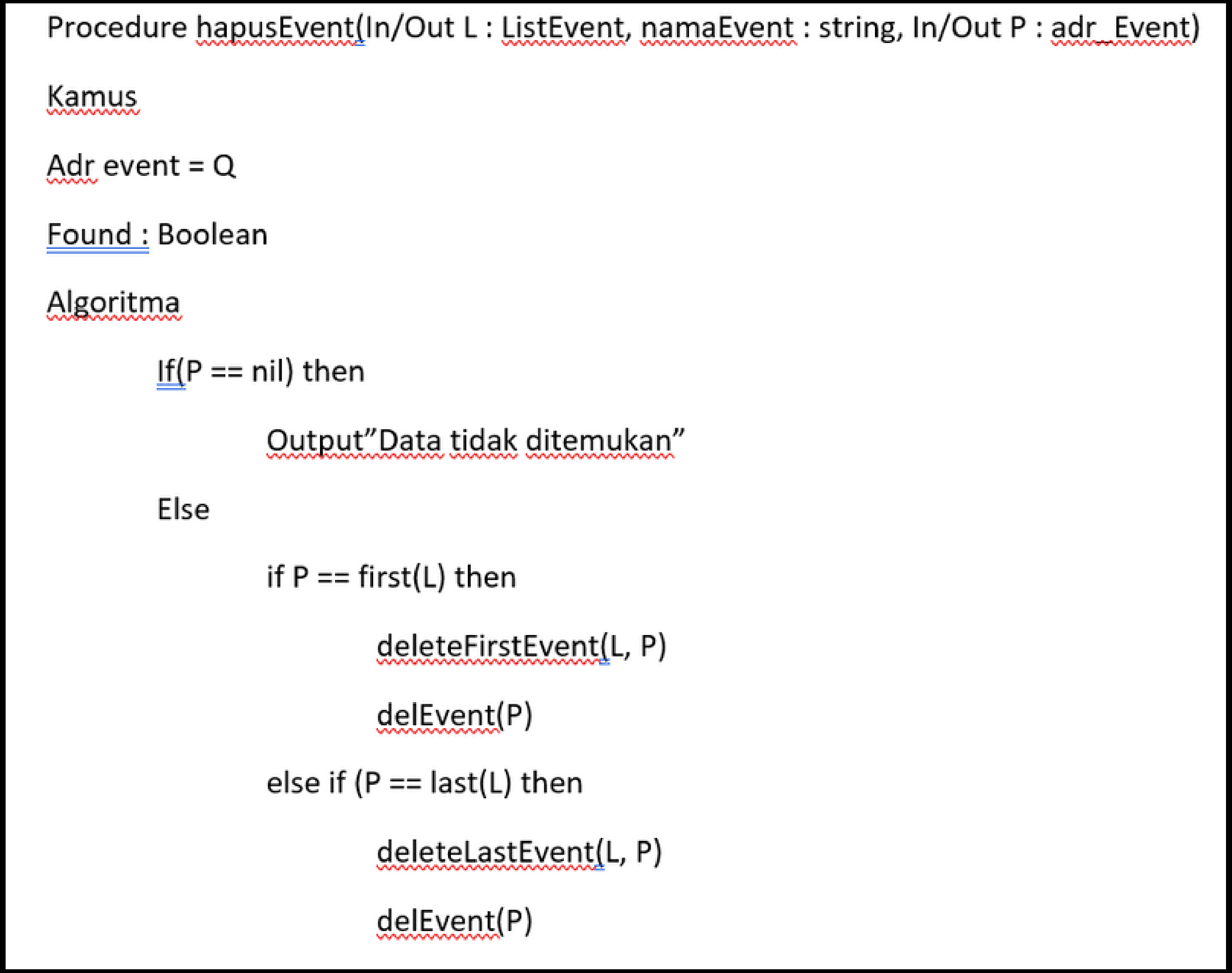


```
Procedure showEvent(In/Out L : ListEvent)
Kamus
Adr_event P = first(L)
Integer i = 1
Algoritma
    If ((isEmptyListEvent(L) == true) then
        Output “Event_Kosong”
    Else
        While (P != first(L) do
            Output”namaEvent”
            Output”butuhBudget”
            Output”budgetKurang”
            Output”budgetLebih”
        P = next(P)
    Endif
Endprocedure
```

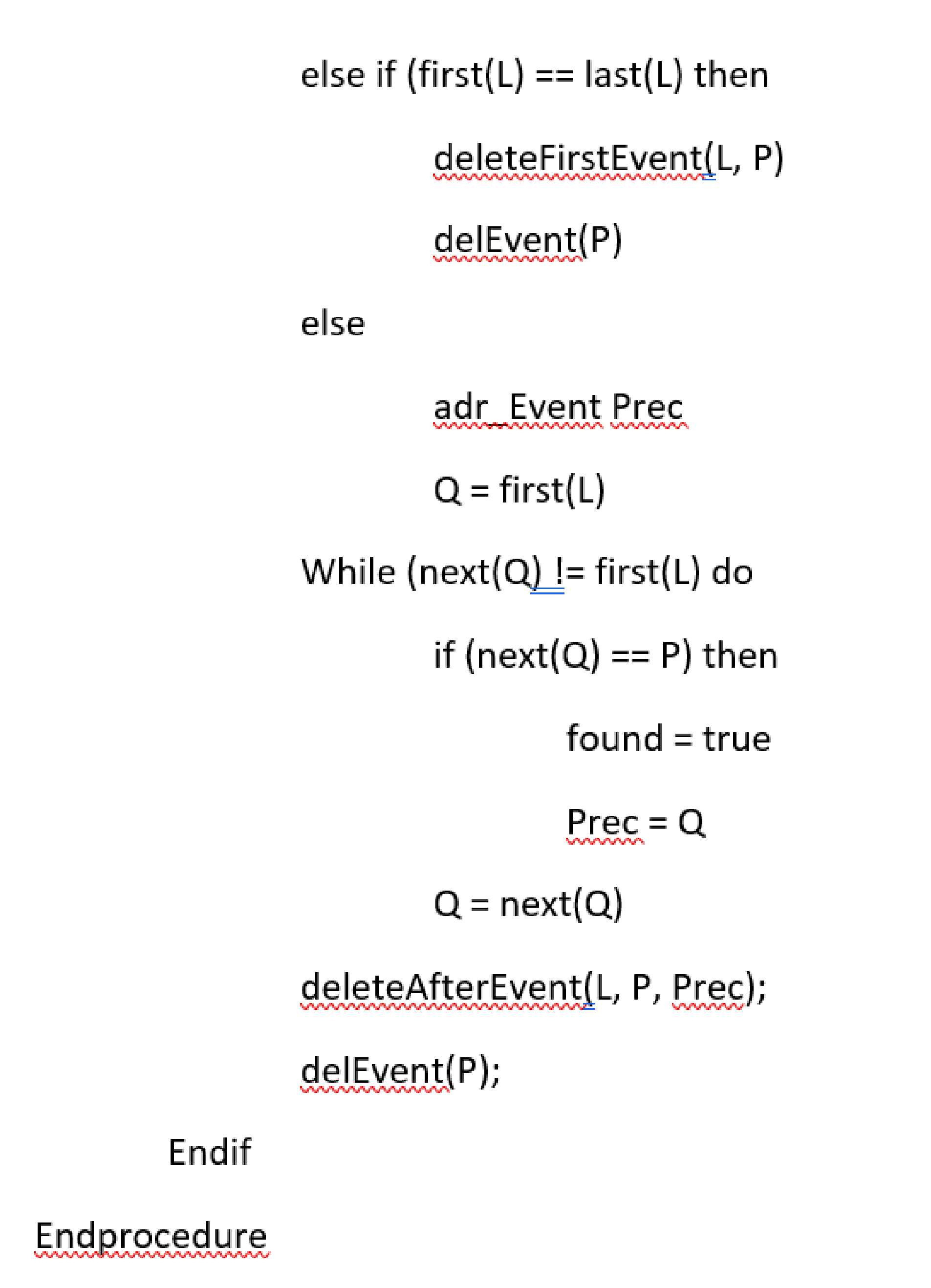
—2020

Coding

# PROCEDURE HAPUS EVENT



```
Procedure hapusEvent(In/Out L : ListEvent, namaEvent : string, In/Out P : adr_Event)
Kamus
Adr event = Q
Found : Boolean
Algoritma
          If(P == nil) then
                    Output"Data tidak ditemukan"
          Else
                    if P == first(L) then
                              deleteFirstEvent(L, P)
                              delEvent(P)
                    else if (P == last(L) then
                              deleteLastEvent(L, P)
                              delEvent(P)
```

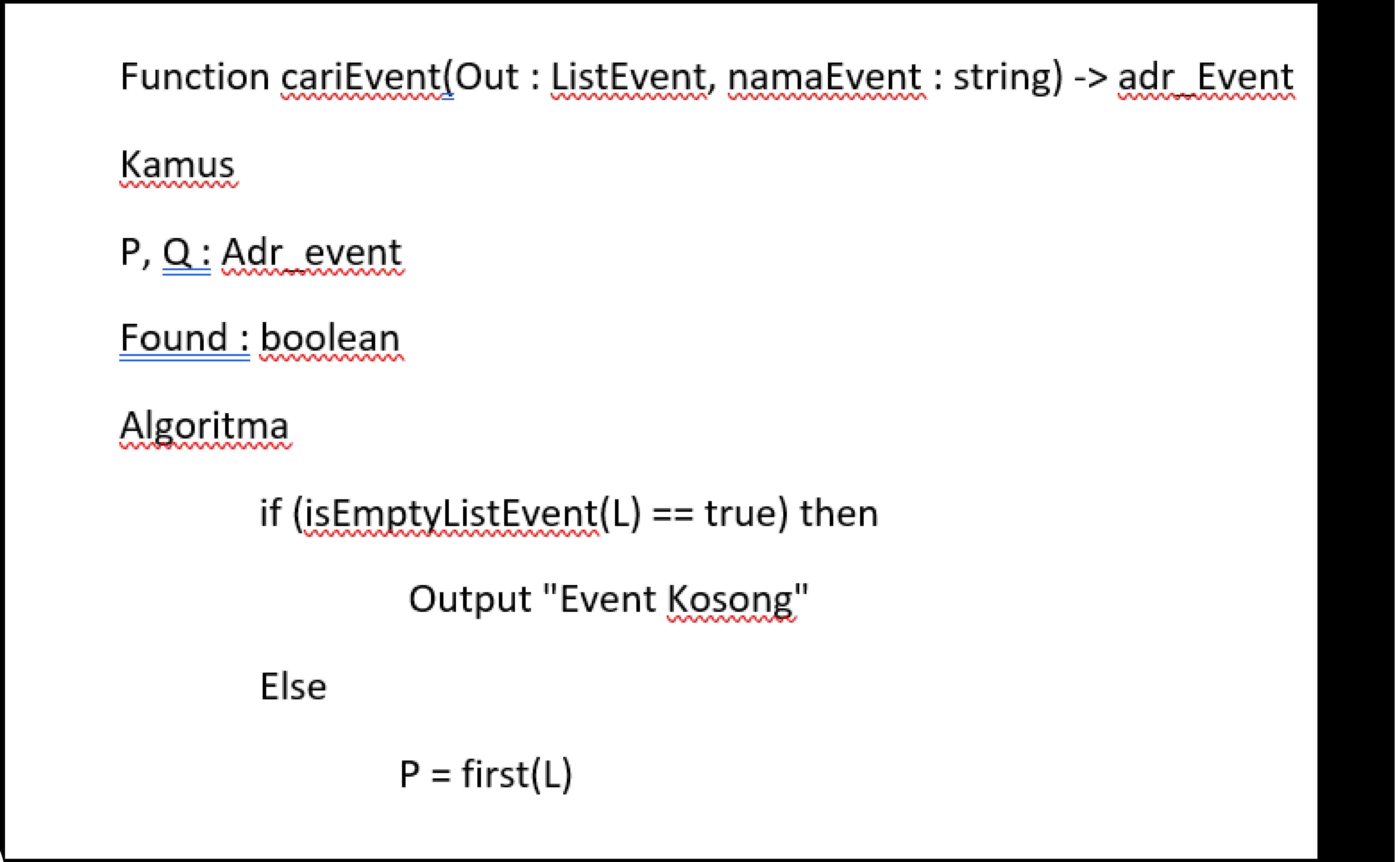


```
                    else if (first(L) == last(L) then
                              deleteFirstEvent(L, P)
                              delEvent(P)
                    else
                              adr_Event Prec
                              Q = first(L)
                    While (next(Q) != first(L) do
                              if (next(Q) == P) then
                                        found = true
                                        Prec = Q
                              Q = next(Q)
                    deleteAfterEvent(L, P, Prec);
                    delEvent(P);
          Endif
Endprocedure
```

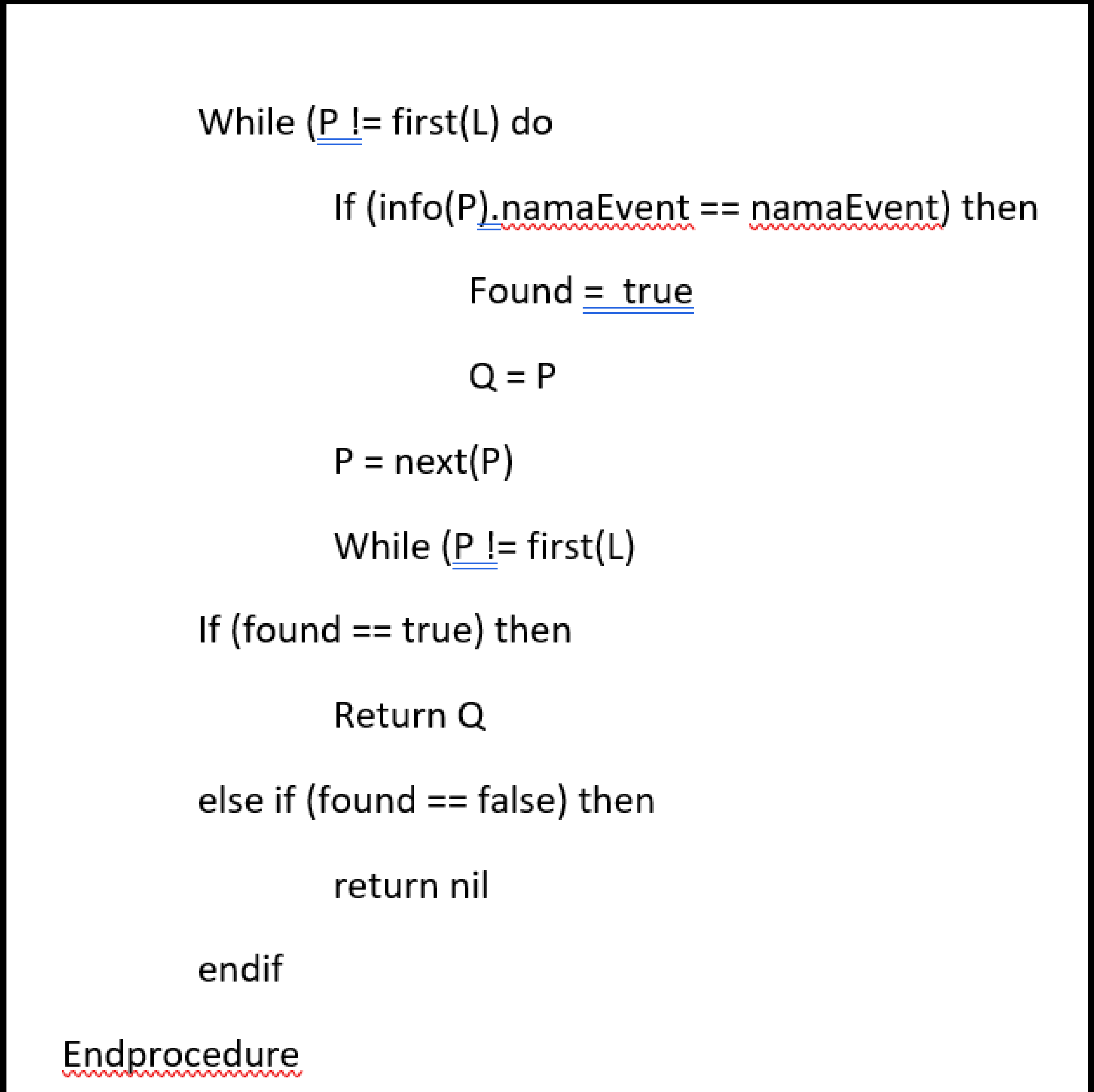
—2020

Coding

# FUNCTION CARI EVENT



```
Function cariEvent(Out : ListEvent, namaEvent : string) -> adr_Event

Kamus

P, Q : Adr_event

Found : boolean

Algoritma

    if (isEmptyListEvent(L) == true) then

        Output "Event Kosong"

    Else

        P = first(L)
```

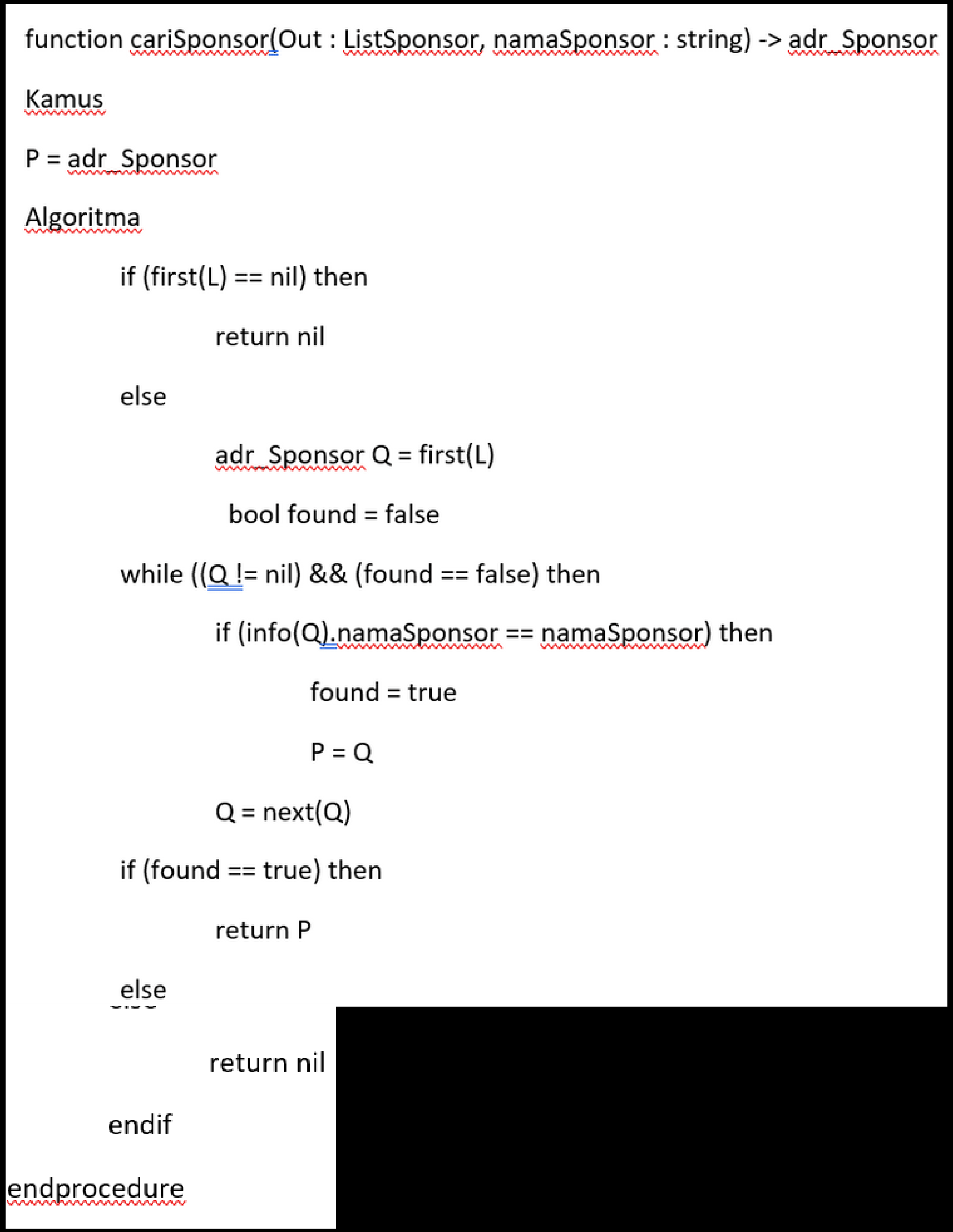


```
    While (P != first(L) do

        If (info(P).namaEvent == namaEvent) then

            Found =  true

            Q = P

        P = next(P)

        While (P != first(L)

    If (found == true) then

        Return Q

    else if (found == false) then

        return nil

    endif

Endprocedure
```

—2020

Coding

# FUNCTION CARI SPONSOR



```
function cariSponsor(Out : ListSponsor, namaSponsor : string) -> adr_Sponsor
Kamus
P = adr_Sponsor
Algoritma
    if (first(L) == nil) then
        return nil
    else
        adr_Sponsor Q = first(L)
         bool found = false
    while ((Q != nil) && (found == false) then
        if (info(Q).namaSponsor == namaSponsor) then
            found = true
            P = Q
        Q = next(Q)
    if (found == true) then
        return P
    else
        return nil
    endif
endprocedure
```

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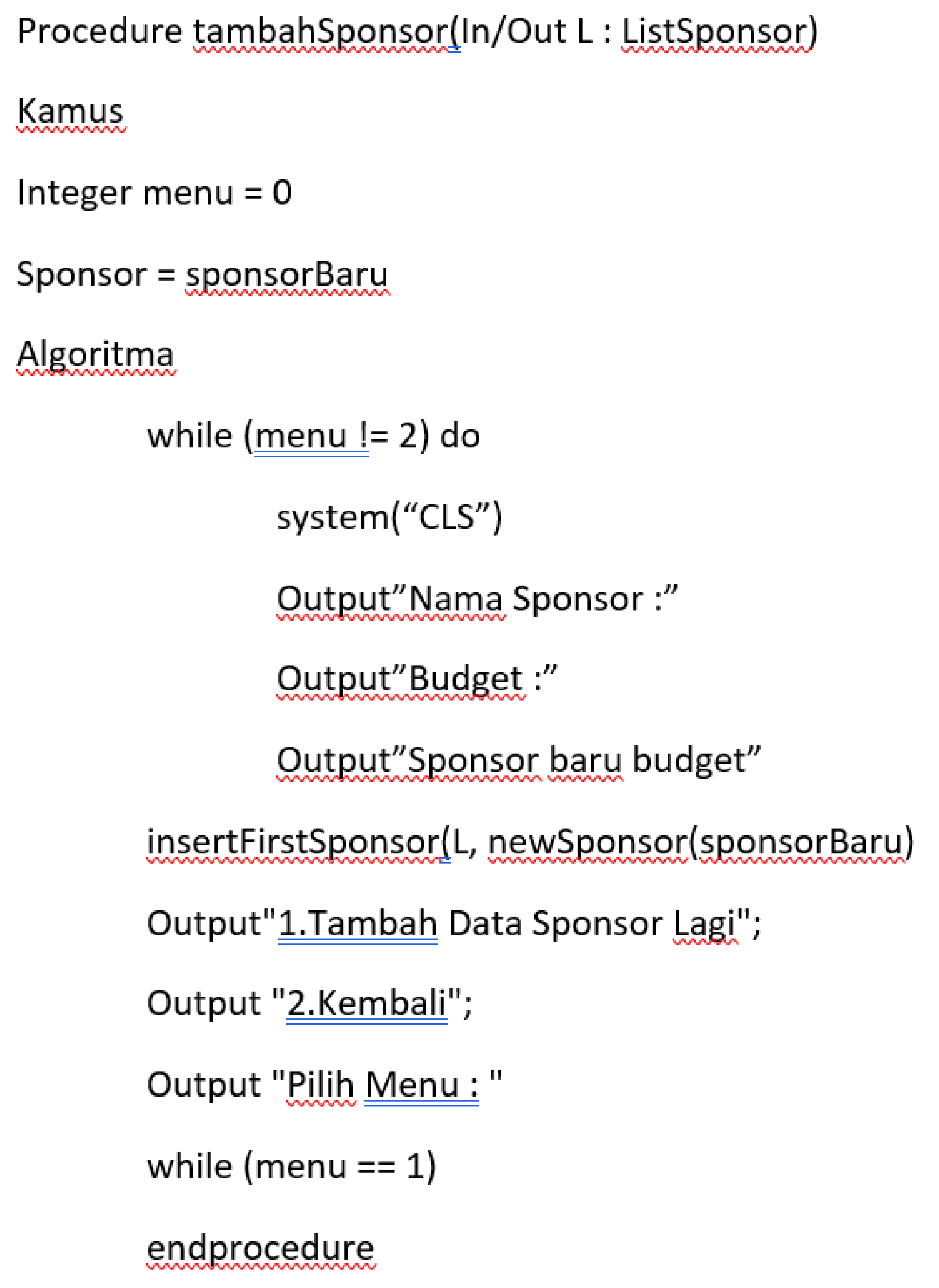
Coding

# PROCEDURE TAMBAH SPONSOR



```
Procedure tambahSponsor(In/Out L : ListSponsor)
Kamus
Integer menu = 0
Sponsor = sponsorBaru
Algoritma
    while (menu != 2) do
        system(“CLS”)
        Output”Nama Sponsor :”
        Output”Budget :”
        Output”Sponsor baru budget”
    insertFirstSponsor(L, newSponsor(sponsorBaru)
    Output"1.Tambah Data Sponsor Lagi";
    Output "2.Kembali";
    Output "Pilih Menu : "
    while (menu == 1)
    endprocedure
```

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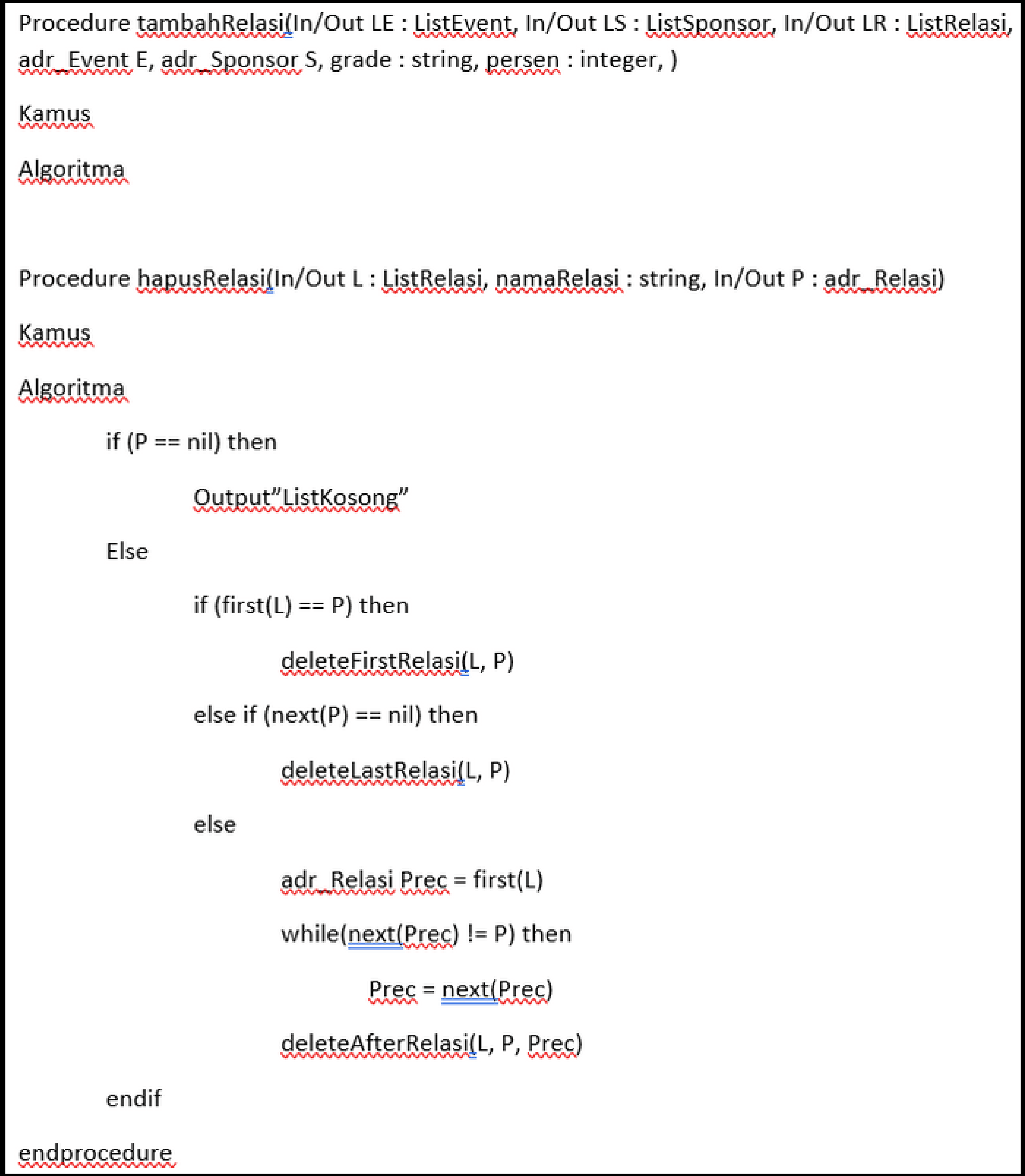
Fairhill Chapter

# PROCEDURE TAMBAH RELASI



```
Procedure tambahRelasi(In/Out LE : ListEvent, In/Out LS : ListSponsor, In/Out LR : ListRelasi,
adr_Event E, adr_Sponsor S, grade : string, persen : integer, )

Kamus

Algoritma


Procedure hapusRelasi(In/Out L : ListRelasi, namaRelasi : string, In/Out P : adr_Relasi)

Kamus

Algoritma

        if (P == nil) then

                Output"ListKosong"

        Else

                if (first(L) == P) then

                        deleteFirstRelasi(L, P)

                else if (next(P) == nil) then

                        deleteLastRelasi(L, P)

                else

                        adr_Relasi Prec = first(L)

                        while(next(Prec) != P) then

                                Prec = next(Prec)

                        deleteAfterRelasi(L, P, Prec)

        endif

endprocedure
```

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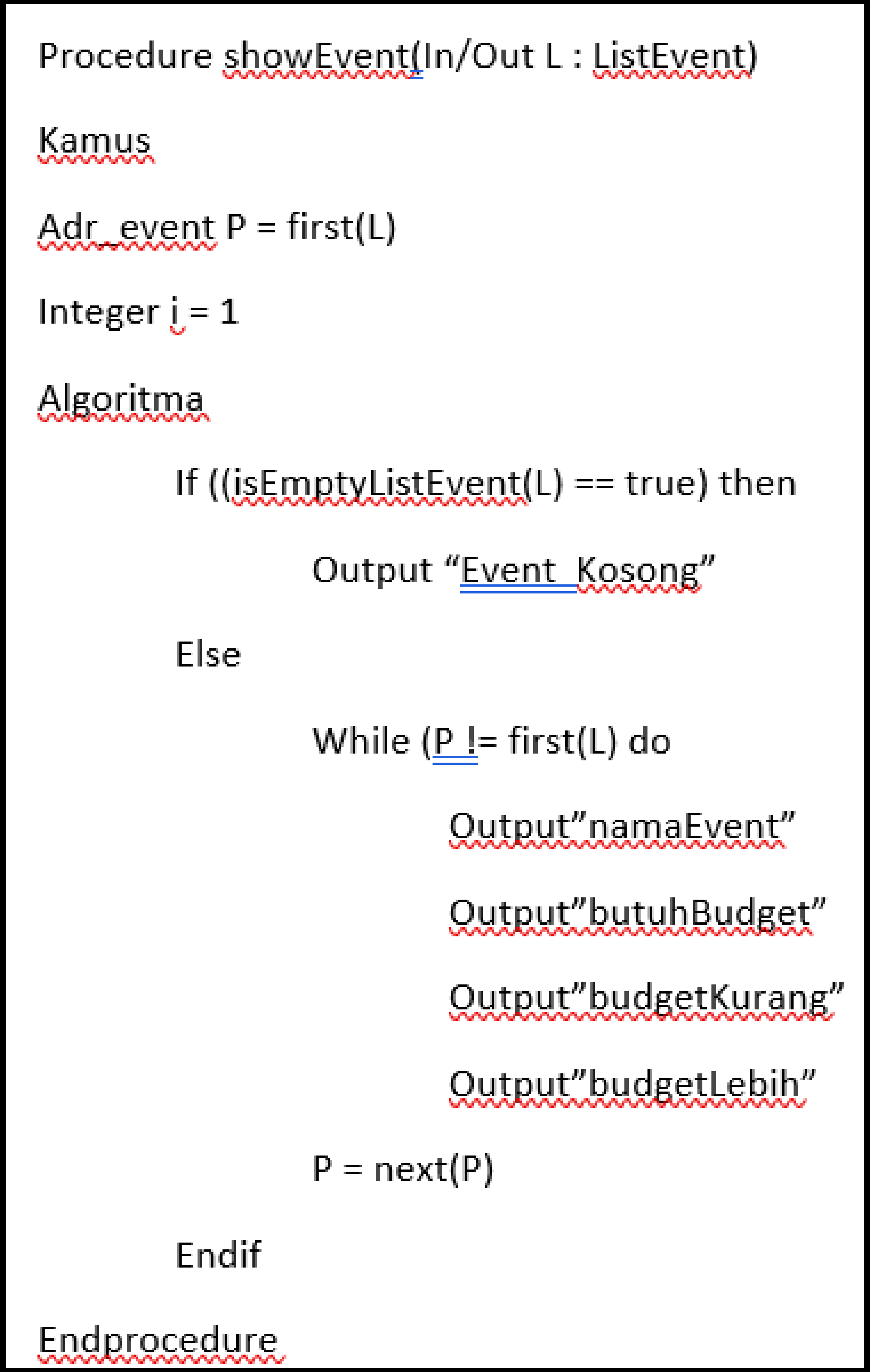
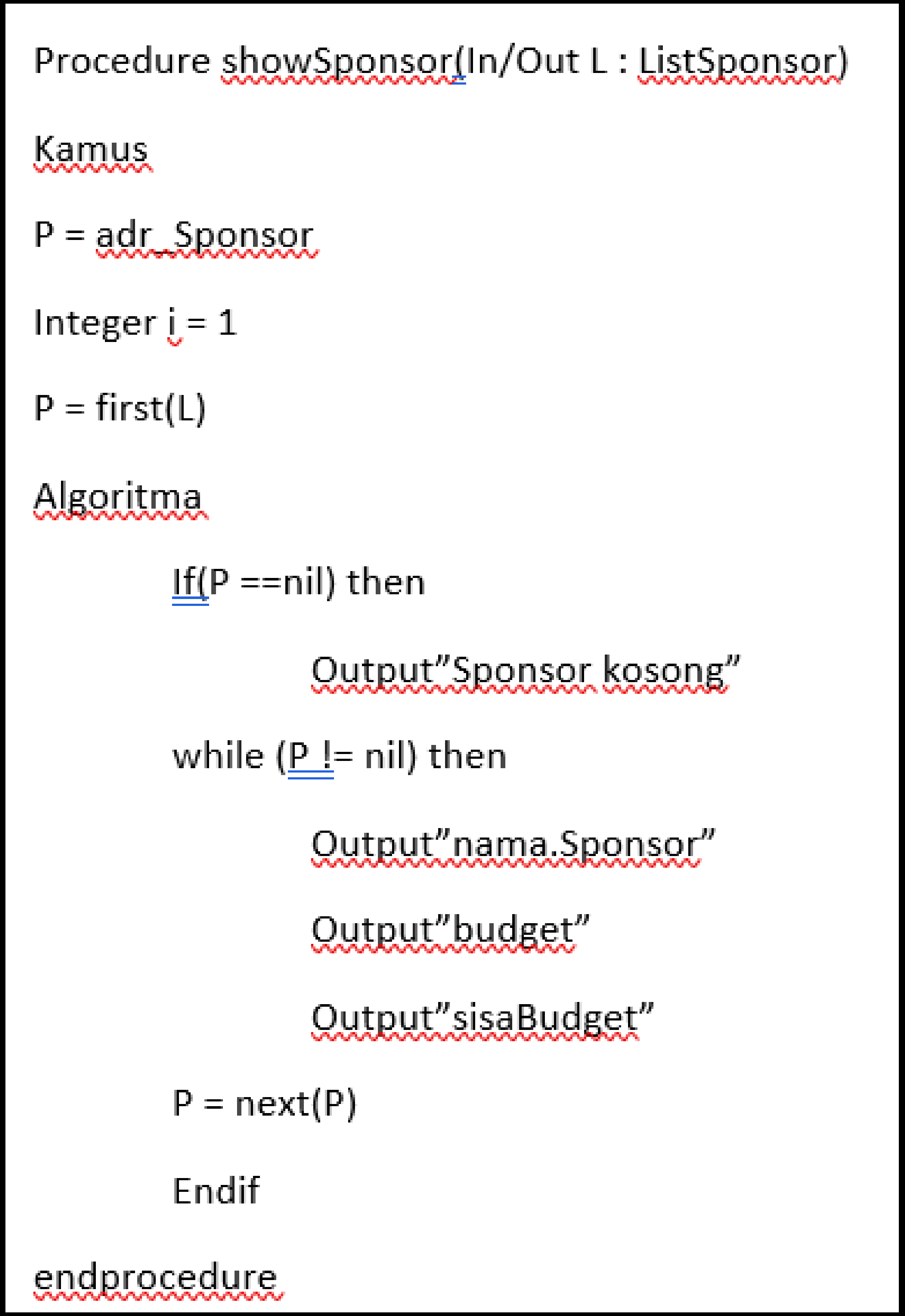
Coding

# PROCEDURE  SHOW EVENT SHOW SPONSOR



```
Procedure showEvent(In/Out L : ListEvent)
Kamus
Adr_event P = first(L)
Integer i = 1
Algoritma
    If ((isEmptyListEvent(L) == true) then
        Output "Event_Kosong"
    Else
        While (P != first(L) do
            Output"namaEvent"
            Output"butuhBudget"
            Output"budgetKurang"
            Output"budgetLebih"
        P = next(P)
    Endif
Endprocedure
```



```
Procedure showSponsor(In/Out L : ListSponsor)
Kamus
P = adr_Sponsor
Integer i = 1
P = first(L)
Algoritma
    If(P ==nil) then
        Output"Sponsor kosong"
    while (P != nil) then
        Output"nama.Sponsor"
        Output"budget"
        Output"sisaBudget"
    P = next(P)
    Endif
endprocedure
```

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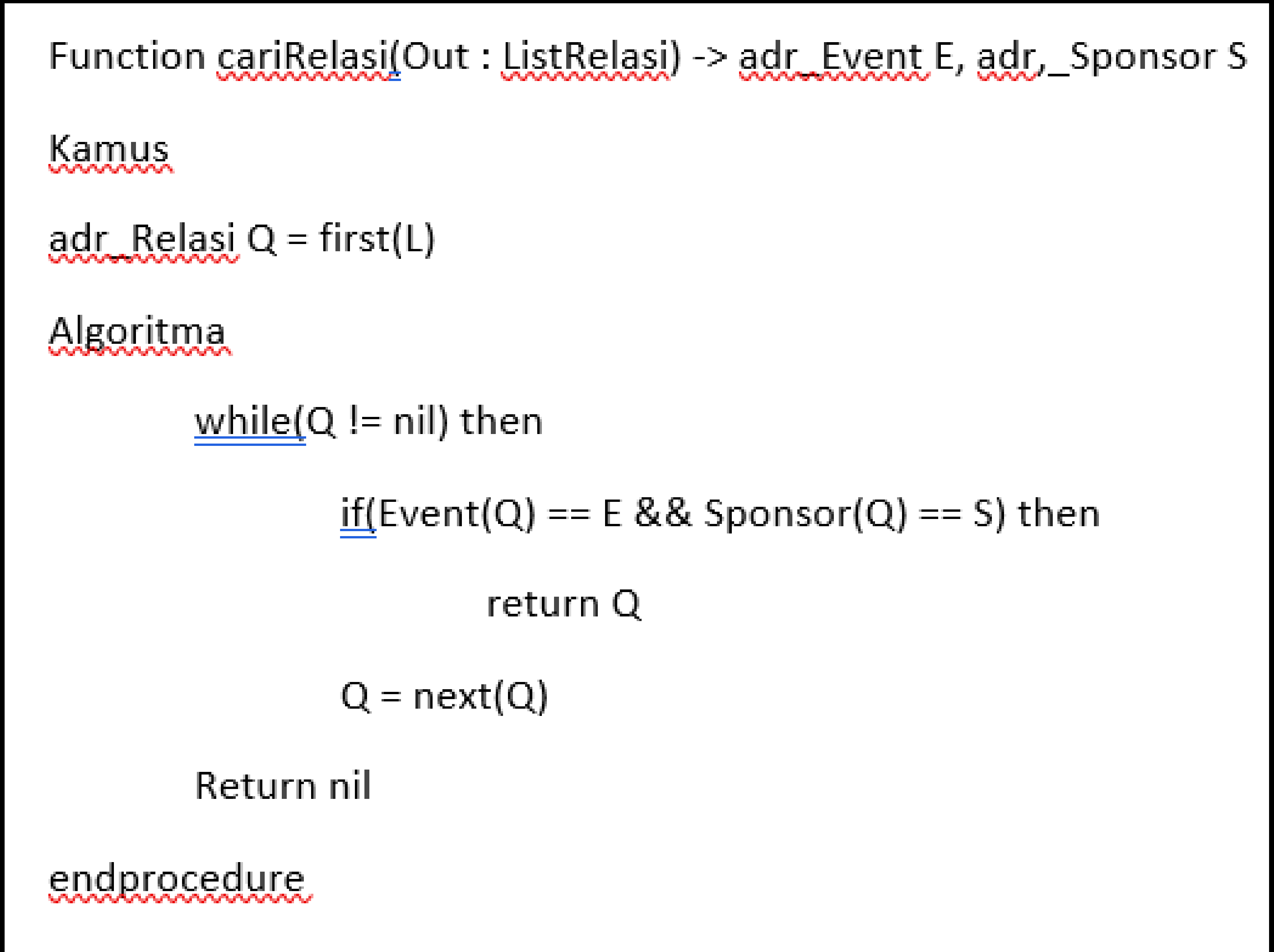
Coding

# FUNCTION CARI RELASI



```
Function cariRelasi(Out : ListRelasi) -> adr_Event E, adr,_Sponsor S

Kamus

adr_Relasi Q = first(L)

Algoritma

          while(Q != nil) then

                    if(Event(Q) == E && Sponsor(Q) == S) then

                              return Q

                    Q = next(Q)

          Return nil

endprocedure
```

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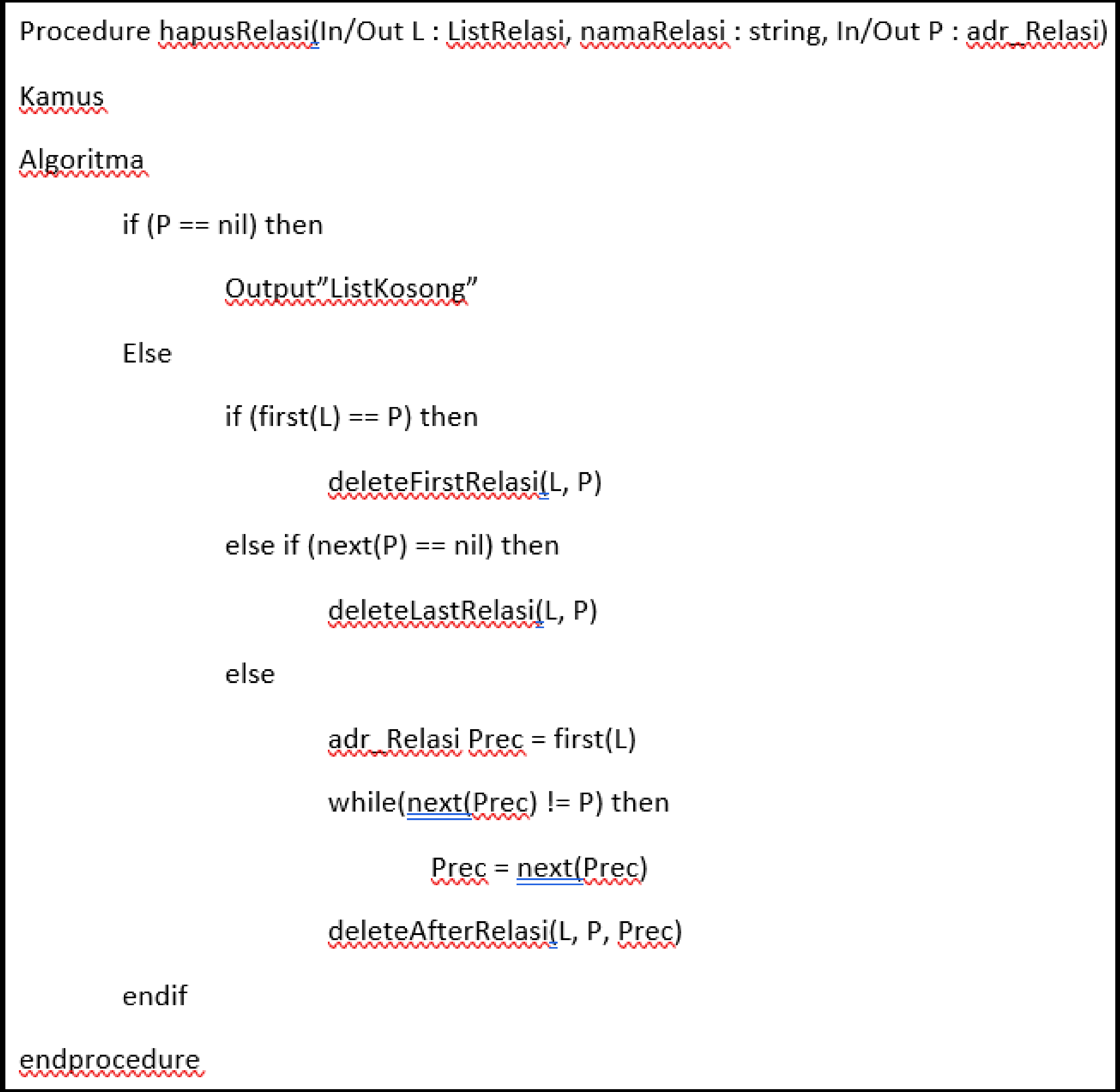
Coding

# PROCEDURE HAPUS RELASI



```
Procedure hapusRelasi(In/Out L : ListRelasi, namaRelasi : string, In/Out P : adr_Relasi)
Kamus
Algoritma
        if (P == nil) then
                Output”ListKosong”
        Else
                if (first(L) == P) then
                        deleteFirstRelasi(L, P)
                else if (next(P) == nil) then
                        deleteLastRelasi(L, P)
                else
                        adr_Relasi Prec = first(L)
                        while(next(Prec) != P) then
                                Prec = next(Prec)
                        deleteAfterRelasi(L, P, Prec)
        endif
endprocedure
```

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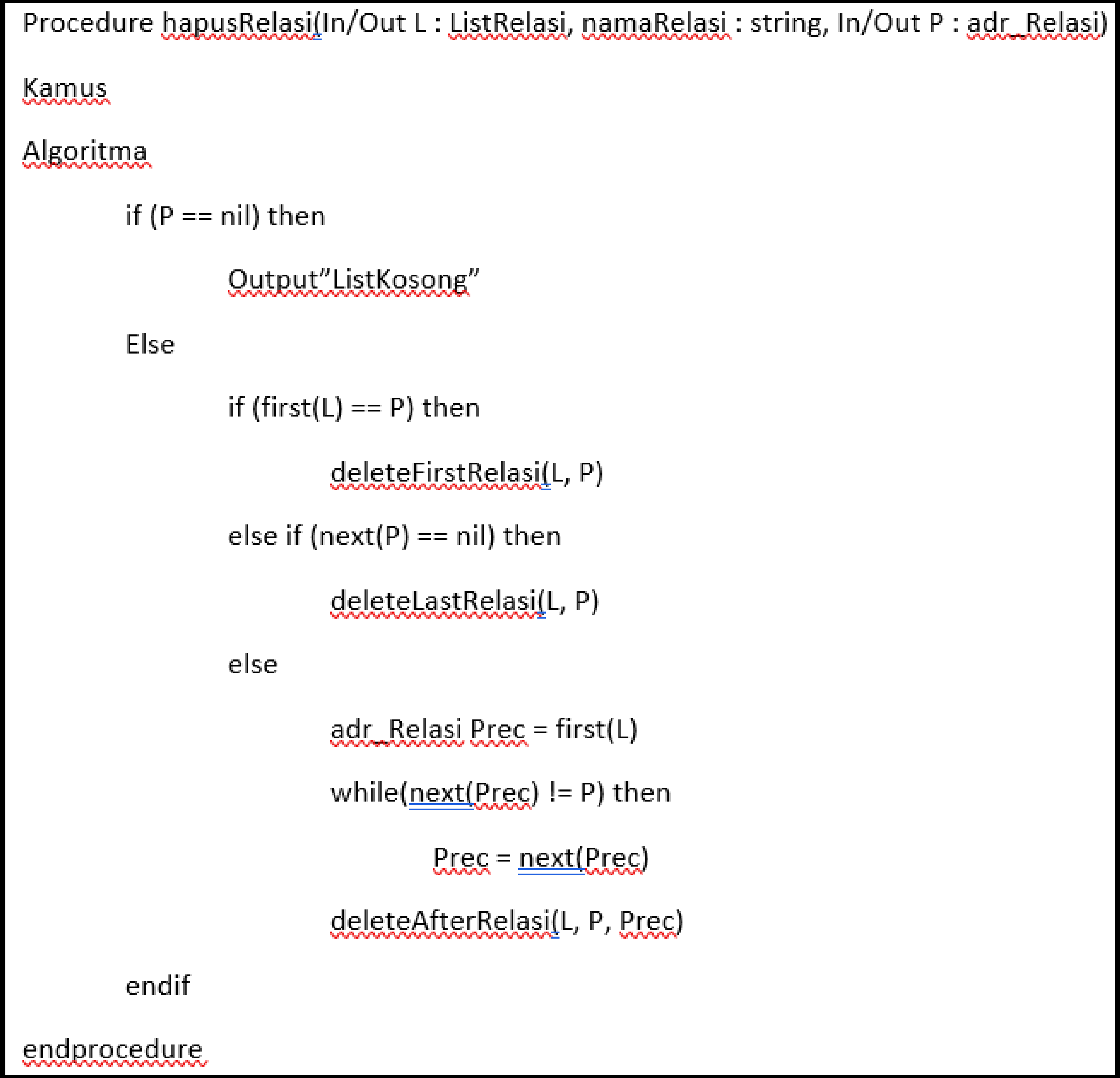
Coding

# PROCEDURE HAPUS RELASI



```
Procedure hapusRelasi(In/Out L : ListRelasi, namaRelasi : string, In/Out P : adr_Relasi)
Kamus
Algoritma
    if (P == nil) then
        Output"ListKosong"
    Else
        if (first(L) == P) then
            deleteFirstRelasi(L, P)
        else if (next(P) == nil) then
            deleteLastRelasi(L, P)
        else
            adr_Relasi Prec = first(L)
            while(next(Prec) != P) then
                Prec = next(Prec)
            deleteAfterRelasi(L, P, Prec)
    endif
endprocedure
```

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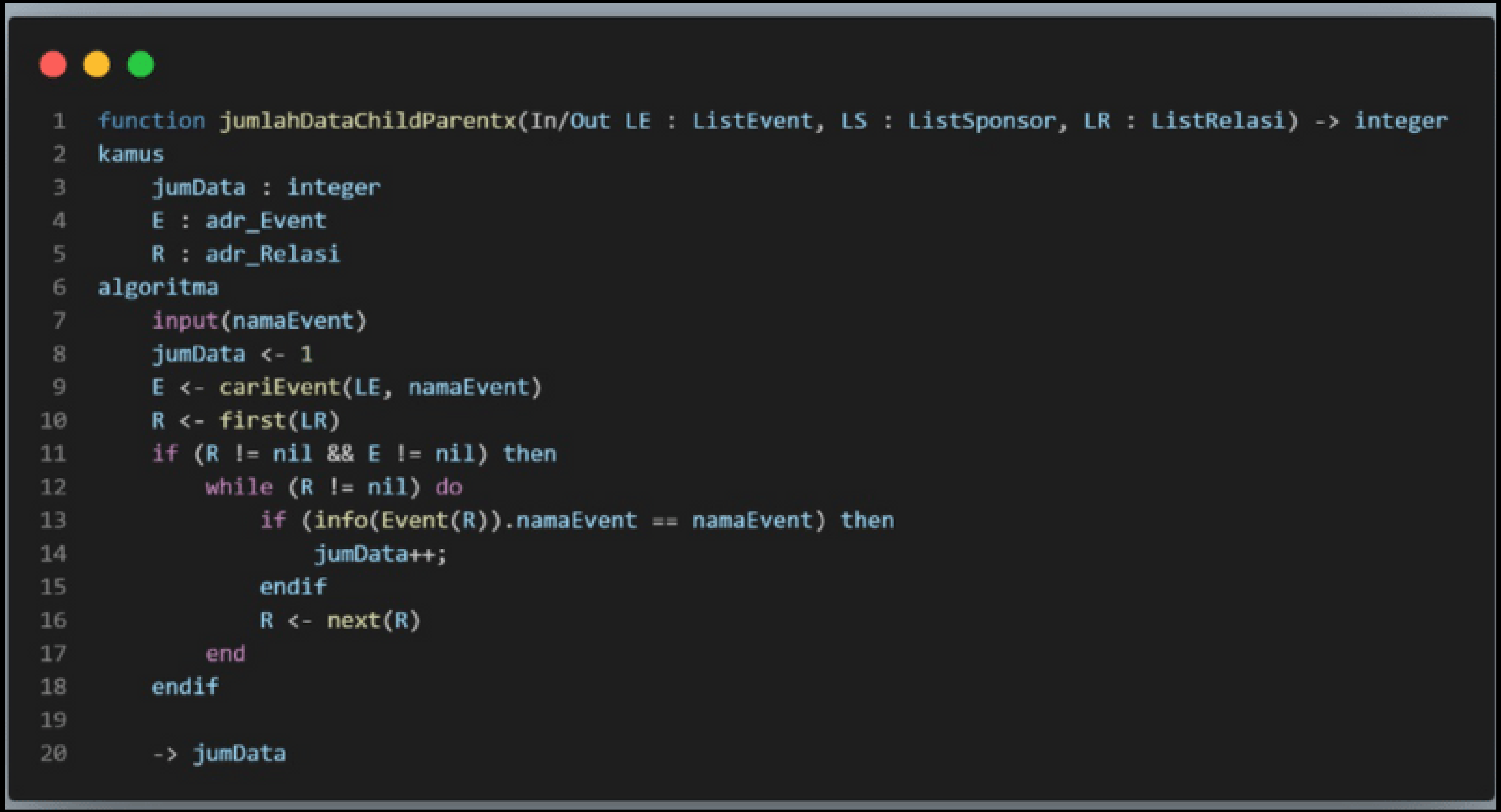
# Codingan



```
function jumlahDataChildParentx(In/Out LE : ListEvent, LS : ListSponsor, LR : ListRelasi) -> integer
kamus
    jumData : integer
    E : adr_Event
    R : adr_Relasi
algoritma
    input(namaEvent)
    jumData <- 1
    E <- cariEvent(LE, namaEvent)
    R <- first(LR)
    if (R != nil && E != nil) then
        while (R != nil) do
            if (info(Event(R)).namaEvent == namaEvent) then
                jumData++;
            endif
            R <- next(R)
        end
    endif

    -> jumData
```

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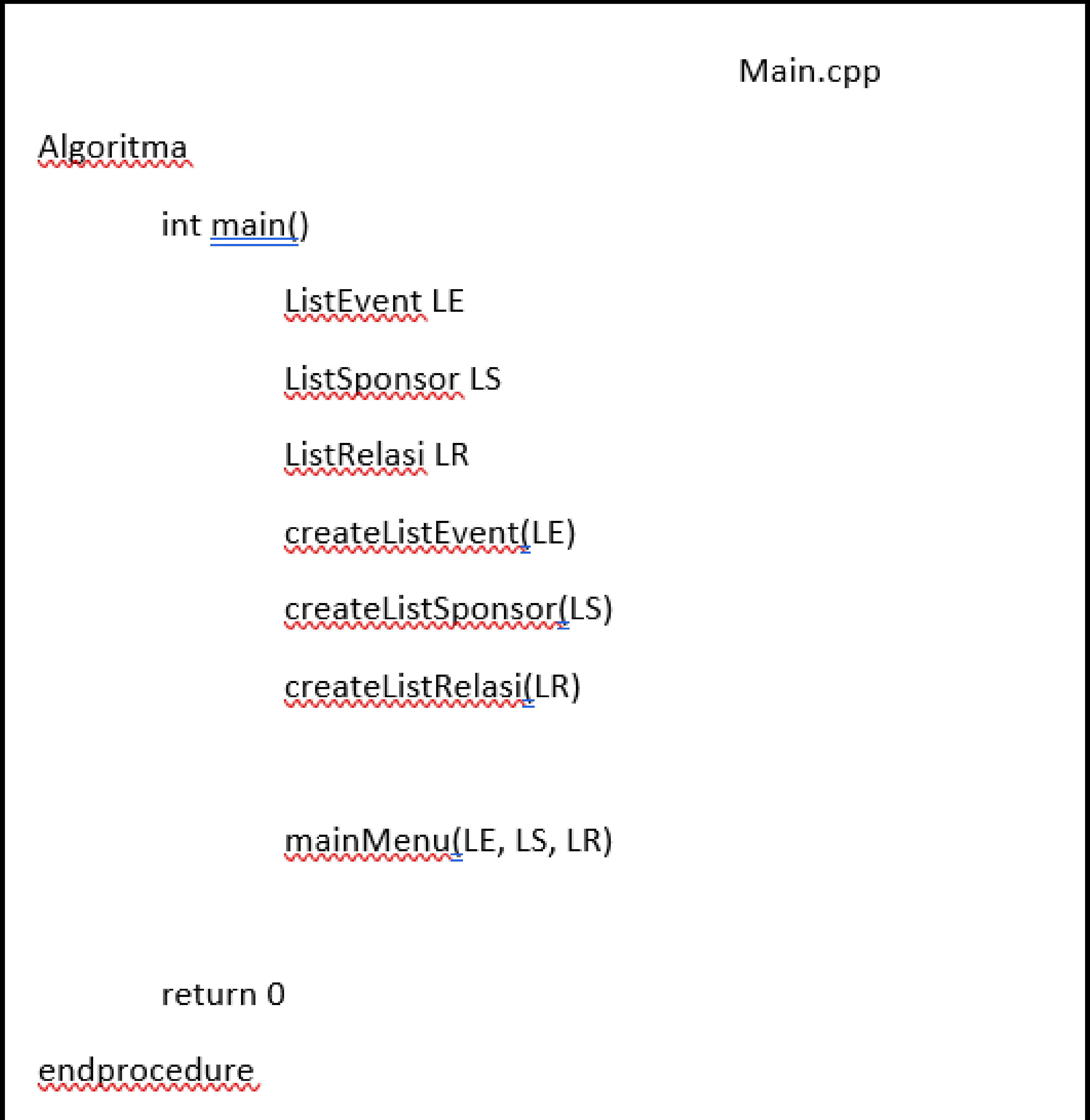
Codingan

# MAIN.CPP



Main.cpp

```
Algoritma
    int main()
        ListEvent LE
        ListSponsor LS
        ListRelasi LR
        createListEvent(LE)
        createListSponsor(LS)
        createListRelasi(LR)

        mainMenu(LE, LS, LR)

    return 0
endprocedure
```

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# THANK YOU

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