

レポート4

EX1

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CafeOBJ> in subject4/ex1.cafe >> ex1_result.txt

processing input : C:/Users/rmjap/Downloads/cafeobj-1.6.2-sbcl-win64/dist/cafeobj-1.6-sbcl/. /subject4/ex1.cafe

-- defining module* TRIV-ERR
[Warning]: Redefining module TRIV-ERR
-- defining module* TRIV-ERR-ORD
[Warning]: Redefining module TRIV-ERR-ORD
-- defining module! STRING-ERR
[Warning]: Redefining module STRING-ERR
-- defining view TRIV-ERR-ORD2STRING-ERR
[Warning]: redefining view TRIV-ERR-ORD2STRING-ERR
-- defining module! NAT-ERR
[Warning]: Redefining module NAT-ERR
-- defining view TRIV2NAT
[Warning]: redefining view TRIV2NAT
-- defining view TRIV-ERR2NAT-ERR
[Warning]: redefining view TRIV-ERR2NAT-ERR
-- defining module! GLIST1
[Warning]: Redefining module GLIST1
-- defining module! GLIST2
[Warning]: Redefining module GLIST2
-- defining module! GLIST-ERR
[Warning]: Redefining module GLIST-ERR
-- defining module! GLIST-ERR-ORD
[Warning]: Redefining module GLIST-ERR-ORD
-- defining module! NATLIST1
[Warning]: Redefining module NATLIST1
-- defining module! NATLIST2
[Warning]: Redefining module NATLIST2
-- defining module! NATLIST7
[Warning]: Redefining module NATLIST7
-- defining module! NATLIST8
[Warning]: Redefining module NATLIST8
-- defining view TRIV-ERR2NATLIST8
[Warning]: redefining view TRIV-ERR2NATLIST8
-- defining module! NATLISTLIST1
[Warning]: Redefining module NATLISTLIST1
-- defining view TRIV-ERR-ORD2NAT-ERR
[Warning]: redefining view TRIV-ERR-ORD2NAT-ERR
-- defining module! NATLIST9
[Warning]: Redefining module NATLIST9
-- defining view TRIV-ERR-ORD2NATLIST9
[Warning]: redefining view TRIV-ERR-ORD2NATLIST9
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[Warning]: redefining view TRIV-ERR-ORD2NATLIST9
-- defining module! STRLIST1
[Warning]: Redefining module STRLIST1
-- defining view TRIV-ERR-ORD2STRLIST1
[Warning]: redefining view TRIV-ERR-ORD2STRLIST1
-- defining module! QQSORT
[Warning]: Redefining module QQSORT
-- defining module! GMERGESORT
[Warning]: Redefining module GMERGESORT
-- opening module NATLIST1
-- reduce in %NATLIST1 : (((4 | (3 | nil)) @ (2 | (1 | (0 | nil))))):List
(4 | (3 | (2 | (1 | (0 | nil))))):NnList
(0.0000 sec for parse, 0.0000 sec for 3 rewrites + 5 matches)
-- opening module NATLIST7
-- reduce in %NATLIST7 : (hd(nlnil)):ErrNat
(errNat):ErrNat
(0.0000 sec for parse, 0.0000 sec for 1 rewrites + 1 matches)
-- reduce in %NATLIST7 : (hd(((4 | (3 | nlnil)) @ (2 | (1 | (0 | nlnil))))):Nat&Err
(4):NzNat
(0.0000 sec for parse, 0.0000 sec for 4 rewrites + 6 matches)
-- reduce in %NATLIST7 : (tl(nlnil)):NatList
(nlnil):Nlnil
(0.0000 sec for parse, 0.0000 sec for 1 rewrites + 1 matches)
-- reduce in %NATLIST7 : (tl(((4 | (3 | nlnil)) @ (2 | (1 | (0 | nlnil))))):NatList
(3 | (2 | (1 | (0 | nlnil)))):NnNatList
(0.0000 sec for parse, 0.0000 sec for 4 rewrites + 7 matches)
-- opening module NATLIST8
-- reduce in %NATLIST8 : (hd(nlnil)):ErrNat
(errNat):ErrNat
(0.0000 sec for parse, 0.0000 sec for 1 rewrites + 1 matches)
-- reduce in %NATLIST8 : (hd(((4 | (3 | nlnil)) @ (2 | (1 | (0 | nlnil))))):Nat&Err
(4):NzNat
(0.0000 sec for parse, 0.0000 sec for 4 rewrites + 6 matches)
-- reduce in %NATLIST8 : (tl(nlnil)):ErrNatList
(errNatList):ErrNatList
(0.0000 sec for parse, 0.0000 sec for 1 rewrites + 1 matches)
-- reduce in %NATLIST8 : (tl(((4 | (3 | nlnil)) @ (2 | (1 | (0 | nlnil))))):NatList&Err
(3 | (2 | (1 | (0 | nlnil)))):NnNatList
(0.0000 sec for parse, 0.0000 sec for 4 rewrites + 6 matches)
-- opening module NATLISTLIST1
-- reduce in %NATLISTLIST1 : (hd(nlnil)):ErrNatList
(errNatList):ErrNatList
(0.0000 sec for parse, 0.0000 sec for 1 rewrites + 1 matches)
-- reduce in %NATLISTLIST1 : (hd(((4 | (3 | nlnil)) | ((2 | (1 | (0 | nlnil)))) | nlnil)))):NatList
(4 | (3 | nlnil)):NnNatList
(0.0000 sec for parse, 0.0000 sec for 1 rewrites + 1 matches)
-- reduce in %NATLISTLIST1 : (tl(nlnil)):ErrNatListList
(errNatListList):ErrNatListList
(0.0000 sec for parse, 0.0000 sec for 1 rewrites + 1 matches)
-- reduce in %NATLISTLIST1 : (tl(((4 | (3 | nlnil)) | ((2 | (1 | (0 | nlnil)))) | nlnil)))):NatListList
((2 | (1 | (0 | nlnil)))) | nlnil):NnNatListList
(0.0000 sec for parse, 0.0000 sec for 1 rewrites + 1 matches)
-- opening module QQSORT(E <= TRIV-ERR-ORD2NAT-ERR)
-- reduce in %QQSORT(E <= TRIV-ERR-ORD2NAT-ERR) : (qsort(((4 | (7 | (5 | (1 | (0 | (3 | (6 | (2 | nil))))))))):List
(0 | (1 | (2 | (3 | (4 | (5 | (6 | (7 | nil))))))):NnList
(0.0000 sec for parse, 0.0000 sec for 64 rewrites + 105 matches)
("C" | ("CafeOBJ" | ("Fortran" | ("Java" | ("Lisp" | ("Pascal" | ("Prolog" | ("Python" | nil))))))):NnList
(0.0000 sec for parse, 0.0000 sec for 64 rewrites + 102 matches)
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(0.0000 sec for parse, 0.0000 sec for 64 rewrites + 102 matches)
-- opening module %G%SORT(E <- TRIV-ERR-ORD2NATLISTS9)
-- reduce in %G%SORT(E <- TRIV-ERR-ORD2NATLISTS9) : (sort(((1 | (2 | nil))) | ((3 | (0 | (2 | nil)))) | ((2 | nil)) | ((0 | nil)) | (nil) | ((1 | (1 | nil))) | ((1 | (0 | (1 | nil))) | ((1 | (0 | nil))) | nil))))))):List
(nil) | ((0 | nil)) | ((1 | (0 | nil))) | ((1 | (1 | nil))) | ((1 | (2 | nil))) | ((2 | nil)) | ((3 | (0 | (1 | nil)))) | ((3 | (0 | (2 | nil))) | nil))))))):NilList
(0.0000 sec for parse, 0.0000 sec for 183 rewrites + 335 matches)
-- opening module %G%SORT(E <- TRIV-ERR-ORD2STRLISTS1)
-- reduce in %G%SORT(E <- TRIV-ERR-ORD2STRLISTS1) : (sort(((("Cafe0B" | ("fortran" | nil)) | ((("Java" | "C" | ("fortran" | nil))) | ((("fortran" | nil)) | ((("C" | nil) | (nil) | ((("Cafe0B" | ("Cafe0B" | nil)) | ((("Java" | ("C" | ("Cafe0B" | nil))) | ((("Cafe0B" | ("C" | nil)) | nil))))))):List
(snil | ((("C" | nil) | ((("Cafe0B" | ("C" | nil)) | ((("Cafe0B" | ("Cafe0B" | nil)) | ((("Cafe0B" | ("fortran" | nil)) | ((("fortran" | nil) | ((("Java" | "C" | ("Cafe0B" | nil)) | ((("Java" | ("C" | ("fortran" | nil))) | nil))))))):NilList
(0.0000 sec for parse, 0.0000 sec for 183 rewrites + 329 matches)
-- opening module %MERGESORT(E <- TRIV-ERR-ORD2NAT-ERR)
-- reduce in %MERGESORT(E <- TRIV-ERR-ORD2NAT-ERR) : (mergesort((4 | (7 | (5 | (1 | (0 | (3 | (6 | (2 | nil)))))))))):List
(0 | (1 | (2 | (3 | (4 | (5 | (6 | (7 | nil))))))):NilList
(0.0000 sec for parse, 0.0000 sec for 295 rewrites + 459 matches)
-- opening module %MERGESORT(E <- TRIV-ERR-ORD2STRING-ERR)
-- reduce in %MERGESORT(E <- TRIV-ERR-ORD2STRING-ERR) : (mergesort(((("Lisp" | ("Python" | ("Pascal" | ("Cafe0B" | ("C" | ("Java" | ("Prolog" | ("fortran" | nil)))))))))):List
("C" | ("Cafe0B" | ("fortran" | ("Java" | ("Lisp" | ("Pascal" | ("Prolog" | ("Python" | nil))))))):NilList
(0.0000 sec for parse, 0.0000 sec for 295 rewrites + 457 matches)
-- opening module %MERGESORT(E <- TRIV-ERR-ORD2NATLISTS9)
-- reduce in %MERGESORT(E <- TRIV-ERR-ORD2NATLISTS9) : (mergesort(((1 | (2 | nil)) | ((3 | (0 | (2 | nil))) | ((2 | nil)) | ((0 | nil)) | (nil) | ((1 | (1 | nil))) | ((3 | (0 | (1 | nil))) | ((1 | (0 | nil))) | nil))))))):List
(nil) | ((0 | nil)) | ((1 | (0 | nil))) | ((1 | (1 | nil))) | ((1 | (2 | nil))) | ((2 | nil)) | ((3 | (0 | (1 | nil)))) | ((3 | (0 | (2 | nil))) | nil))))))):NilList
(0.0000 sec for parse, 0.0000 sec for 428 rewrites + 716 matches)
-- opening module %MERGESORT(E <- TRIV-ERR-ORD2STRLISTS1)
-- reduce in %MERGESORT(E <- TRIV-ERR-ORD2STRLISTS1) : (mergesort(((("Cafe0B" | ("fortran" | nil)) | ((("Java" | "C" | ("fortran" | nil))) | ((("fortran" | nil) | ((("C" | nil) | (nil) | ((("Cafe0B" | ("Cafe0B" | nil)) | ((("Java" | "C" | ("Cafe0B" | nil))) | ((("Cafe0B" | ("C" | nil)) | nil))))))):List
(snil | ((("C" | nil) | ((("Cafe0B" | ("C" | nil)) | ((("Cafe0B" | ("Cafe0B" | nil)) | ((("Cafe0B" | ("fortran" | nil)) | ((("fortran" | nil) | ((("Java" | "C" | ("Cafe0B" | nil)) | ((("Java" | ("C" | ("fortran" | nil))) | nil))))))):NilList
(0.0000 sec for parse, 0.0000 sec for 428 rewrites + 709 matches)

Cafe0B> in subject4/ex1.cafe >> ex1_result.txt

** Caught an exception: Interactive Interrupt at 8x100068346C.
[Returning to Toplevel]

Cafe0B>

** Caught an exception: Interactive Interrupt at 8x100068346C.
[Returning to Toplevel]

Cafe0B> █

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Ex2 : mergesort

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Cafe0B> in subject4/ex2_merge.cafe

processing input : C:/Users/rwjpaj/Downloads/cafeobj-1.6.2-shcl-win64/dist/cafeobj-1.6-shcl/./subject4/ex2_merge.cafe

-- defining module* TRIV-ERR
[Warning]: Redefining module TRIV-ERR
-- defining module* TRIV-ERR-ORD
[Warning]: Redefining module TRIV-ERR-ORD
-- defining module! STRING-ERR
[Warning]: Redefining module STRING-ERR
-- defining view TRIV-ERR-ORD2STRING-ERR
[Warning]: redefining view TRIV-ERR-ORD2STRING-ERR
-- defining module! NAT-ERR
[Warning]: Redefining module NAT-ERR
-- defining view TRIV-ERR2NAT-ERR
[Warning]: redefining view TRIV-ERR2NAT-ERR
-- defining module! GLIST-ERR
[Warning]: Redefining module GLIST-ERR
-- defining module! GLIST-ERR-ORD
[Warning]: Redefining module GLIST-ERR-ORD
-- defining view TRIV-ERR-ORD2NAT-ERR
[Warning]: redefining view TRIV-ERR-ORD2NAT-ERR
-- defining module! NATLISTS9
[Warning]: Redefining module NATLISTS9
-- defining view TRIV-ERR-ORD2NATLISTS9
[Warning]: redefining view TRIV-ERR-ORD2NATLISTS9
-- defining module! STRLISTS1
[Warning]: Redefining module STRLISTS1
-- defining view TRIV-ERR-ORD2STRLISTS1
[Warning]: redefining view TRIV-ERR-ORD2STRLISTS1
-- defining module! %MERGESORT
[Warning]: Redefining module %MERGESORT
-- opening module %MERGESORT(E <- TRIV-ERR-ORD2NAT-ERR)
-- reduce in %MERGESORT(E <- TRIV-ERR-ORD2NAT-ERR) : (mergesort((4 | (7 | (5 | (1 | (0 | (3 | (6 | (2 | nil)))))))))):List
(0 | (1 | (2 | (3 | (4 | (5 | (6 | (7 | nil))))))):NilList
(0.0000 sec for parse, 0.0000 sec for 295 rewrites + 459 matches)
-- opening module %MERGESORT(E <- TRIV-ERR-ORD2STRING-ERR)
-- reduce in %MERGESORT(E <- TRIV-ERR-ORD2STRING-ERR) : (mergesort(((("Lisp" | ("Python" | ("Pascal" | ("Cafe0B" | ("C" | ("Java" | ("Prolog" | ("fortran" | nil)))))))))):List
("C" | ("Cafe0B" | ("fortran" | ("Java" | ("Lisp" | ("Pascal" | ("Prolog" | ("Python" | nil))))))):NilList
(0.0000 sec for parse, 0.0000 sec for 295 rewrites + 457 matches)
-- opening module %MERGESORT(E <- TRIV-ERR-ORD2NATLISTS9)
-- reduce in %MERGESORT(E <- TRIV-ERR-ORD2NATLISTS9) : (mergesort(((1 | (2 | nil)) | ((3 | (0 | (2 | nil))) | ((2 | nil)) | ((0 | nil)) | (nil) | ((1 | (1 | nil))) | ((3 | (0 | (1 | nil))) | ((1 | (0 | nil))) | nil))))))):List
(nil) | ((0 | nil)) | ((1 | (0 | nil))) | ((1 | (1 | nil))) | ((1 | (2 | nil))) | ((2 | nil)) | ((3 | (0 | (1 | nil)))) | ((3 | (0 | (2 | nil))) | nil))))))):NilList
(0.0000 sec for parse, 0.0000 sec for 428 rewrites + 716 matches)
-- opening module %MERGESORT(E <- TRIV-ERR-ORD2STRLISTS1)
-- reduce in %MERGESORT(E <- TRIV-ERR-ORD2STRLISTS1) : (mergesort(((("Cafe0B" | ("fortran" | nil)) | ((("Java" | "C" | ("fortran" | nil))) | ((("fortran" | nil) | ((("C" | nil) | (nil) | ((("Cafe0B" | ("Cafe0B" | nil)) | ((("Java" | "C" | ("Cafe0B" | nil))) | ((("Cafe0B" | ("C" | nil)) | nil))))))):List
(snil | ((("C" | nil) | ((("Cafe0B" | ("C" | nil)) | ((("Cafe0B" | ("Cafe0B" | nil)) | ((("Cafe0B" | ("fortran" | nil)) | ((("fortran" | nil) | ((("Java" | "C" | ("Cafe0B" | nil)) | ((("Java" | ("C" | ("fortran" | nil))) | nil))))))):NilList
(0.0000 sec for parse, 0.0000 sec for 428 rewrites + 709 matches)

Cafe0B> █

```