```
;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
;;;                                                         ;;;
;;; Inference Rules (For importance, higher values go first.)   ;;;
;;; RULES ABOUT: computer usage type              ;;;
;;;                                                         ;;;
;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;

(defrule minimal-usage-type (:backward :certainty 0.8 :importance 99)
  if [or [primary-use ?who email]
        [primary-use ?who web]
        [primary-use ?who office]]
  then [performance-requirement ?who minimum])

(defrule medium-usage-type (:backward :certainty 0.8 :importance 99)
  if [or [primary-use ?who design]
        [primary-use ?who programming]
        [primary-use ?who edit-home-movies]]
  then [performance-requirement ?who medium])

(defrule maximum-usage-type (:backward :certainty 0.8 :importance 99)
  if [or [primary-use ?who 3d-games]
        [primary-use ?who pro-video]]
  then [performance-requirement ?who maximum])

(defrule dont-know-usage4 (:backward :certainty 0.6 :importance 99)
  if [and [primary-use ?who dont-know]
        [or [job-title ?who designer]
            [job-title ?who engineer]]]
    then [performance-requirement ?who medium])

(defrule secondary-minimal-usage-type (:backward :certainty 0.5 :importance 98)
  if [or [secondary-use ?who email]
        [secondary-use ?who web]
        [secondary-use ?who office]]
  then [performance-requirement ?who minimum])

(defrule secondary-medium-usage-type (:backward :certainty 0.5 :importance 98)
  if [or [secondary-use ?who design]
        [secondary-use ?who programming]
        [secondary-use ?who edit-home-movies]]
  then [performance-requirement ?who medium])

(defrule secondary-maximum-usage-type (:backward :certainty 0.5 :importance 98)
  if [or [secondary-use ?who 3d-games]
        [secondary-use ?who pro-video]]
  then [performance-requirement ?who maximum])

(defrule dont-know-usage-secondary (:backward :certainty 0.5 :importance 97)
  if [primary-use ?who dont-know]
  then [secondary-use ?who dont-know])

(defrule dont-know-usage (:backward :certainty 0.3 :importance 97)
  if [and [primary-use ?who dont-know]
        [or [profession ?who law]
            [profession ?who government]
            [profession ?who education]
            [job-title ?who other]]]
```

```
    then [performance-requirement ?who minimum])

(defrule dont-know-usage2 (:backward :certainty 0.3 :importance 97)
  if [and [primary-use ?who dont-know]
        [or [profession ?who media]
            [profession ?who medicine]
            [profession ?who software]
            [profession ?who sales-marketing]
            [job-title ?who other]]]
    then [performance-requirement ?who medium])

(defrule dont-know-usage3 (:backward :certainty 0.6 :importance 97)
  if [and [primary-use ?who dont-know]
        [or [job-title ?who admin-assistant]
            [job-title ?who manager]
            [job-title ?who education]]]
    then [performance-requirement ?who minimum])


-- for platform type
(defrule no-office-use1 (:backward :certainty 0.5 :importance 96)
  if [and [usesComputerAtWork ?who no]
          [usesComputerAtHome ?who no]]
  then [canUseWindowsPlatform ?who yes])

(defrule no-computer-use2 (:backward :certainty 0.5 :importance 96)
  if [and [usesComputerAtWork ?who no]
          [usesComputerAtHome ?who no]]
  then [canUseMacPlatform ?who yes])

(defrule no-office-use3 (:backward :certainty 1.0 :importance 96)
  if [usesComputerAtWork ?who no]
  then [workComputerType ?who none])

(defrule no-home-use4 (:backward :certainty 1.0 :importance 96)
  if [usesComputerAtHome ?who no]
  then [homeComputerType ?who none])

(defrule mac-office-use (:backward :certainty 1.0 :importance 95)
  if [and [usesComputerAtWork ?who yes]
          [workComputerType ?who mac]]
  then [canUseMacPlatform ?who yes])

(defrule mac-office-use-home (:backward :certainty 0.3 :importance 95)
  if [and [usesComputerAtWork ?who yes]
          [workComputerType ?who mac]
          [bringworkhome ?who no]]
  then [canUseWindowsPlatform ?who yes])

(defrule mac-office-use2 (:backward :certainty 1.0 :importance 95)
  if [and [usesComputerAtWork ?who yes]
          [workComputerType ?who both]]
  then [canUseMacPlatform ?who yes])

(defrule win-office-use (:backward :certainty 1.0 :importance 95)
  if [and [usesComputerAtWork ?who yes]
          [workComputerType ?who windows]]
```

```
      then [canUseWindowsPlatform ?who yes])

(defrule win-office-use2 (:backward :certainty 1.0 :importance 95)
  if [and [usesComputerAtWork ?who yes]
          [workComputerType ?who both]]
  then [canUseWindowsPlatform ?who yes])

(defrule win-office-use-home (:backward :certainty 0.3 :importance 95)
  if [and [usesComputerAtWork ?who yes]
          [workComputerType ?who windows]
          [bringworkhome ?who no]]
  then [canUseMacPlatform ?who yes])

-- for existing machine

(defrule vpc-candidate-from-work (:backward :certainty 1.0 :importance 91)
  if [and [usesComputerAtWork ?who yes]
          [workComputerType ?who Windows]
          [performance-requirement ?who minimum]]
  then [candidateForVirtualPCfromwork ?who yes])

(defrule vpc-candidate-from-work2 (:backward :certainty 1.0 :importance 91)
  if [and [usesComputerAtWork ?who yes]
          [workComputerType ?who Windows]
          [performance-requirement ?who medium]]
  then [candidateForVirtualPCfromwork ?who yes])

(defrule not-vpc-candidate-from-work (:backward :certainty 1.0 :importance 91)
  if [or [usesComputerAtwork ?who no]
         [workComputerType ?who mac]]
  then [candidateForVirtualPCfromwork ?who no])

(defrule not-vpc-candidate (:backward :certainty 1.0 :importance 91)
  if [or [usesComputerAtHome ?who no]
         [homeComputerType ?who mac]
         [keepExistingSoftware ?who no]]
  then [candidateForVirtualPC ?who no])

(defrule vpc-candidate (:backward :certainty 1.0 :importance 91)
  if [and [keepExistingSoftware ?who yes]
          [homeComputerType ?who Windows]
          [performance-requirement ?who minimum]]
  then [candidateForVirtualPC ?who yes])

(defrule vpc-candidate-medium (:backward :certainty 1.0 :importance 91)
  if [and [keepExistingSoftware ?who yes]
          [homeComputerType ?who Windows]
          [performance-requirement ?who medium]]
  then [candidateForVirtualPC ?who yes])

(defrule vpc-yes (:backward :certainty 1.0 :importance 90)
    if  [and [candidateForVirtualPC ?who yes]
             [willingToUseVirtualPC ?who yes]]
  then [canUseMacPlatform ?who yes])

(defrule vpc-yes-from-work (:backward :certainty 1.0 :importance 90)
    if  [and [candidateForVirtualPCfromwork ?who yes]
```

```
                    [willingToUseVirtualPC ?who yes]]
   then [canUseMacPlatform ?who yes])

(defrule existing-software-investment-no (:backward :certainty 1.0 :importance 90)
   if [usesComputerAtHome ?who no]
   then [wantsToKeepExistingSoftwareInvestment ?who no])

(defrule keep-existing-software-no (:backward :certainty 1.0 :importance 90)
   if [wantsToKeepExistingSoftwareInvestment ?who no]
   then [keepExistingSoftware ?who no])

(defrule existing-software-investment (:backward :certainty 1.0 :importance 90)
   if [and [usesComputerAtHome ?who yes]
           [wantsToKeepExistingSoftwareInvestment ?who yes]]
   then [keepExistingSoftware ?who yes])

(defrule keep-existing-mac-software (:backward :certainty 1.0 :importance 89)
   if [and [keepExistingSoftware ?who yes]
           [or [homeComputerType ?who Mac]
               [homeComputerType ?who both]]]
   then [canUseMacPlatform ?who yes])

(defrule keep-existing-win-software (:backward :certainty 1.0 :importance 89)
   if [and [keepExistingSoftware ?who yes]
           [or [homeComputerType ?who windows]
               [homeComputerType ?who both]]]
   then [canUseWindowsPlatform ?who yes])


--other rules
(defrule ipod-yes (:backward :certainty 0.2 :importance 88)
    if  [owns-ipod ?who yes]
   then [canUseMacPlatform ?who yes])

(defrule virus-concern (:backward :certainty 0.2 :importance 88)
    if  [virus-concern ?who yes]
   then [canUseMacPlatform ?who yes])

(defrule game-usage-type (:backward :certainty 0.6 :importance 88)
   if [primary-use ?who 3d-games]
   then [canUseWindowsPlatform ?who yes])

(defrule game-usage-type2 (:backward :certainty 0.3 :importance 88)
   if [secondary-use ?who 3d-games]
   then [canUseWindowsPlatform ?who yes])


-- portability rules
(defrule daily-commuter (:backward :certainty 1.0 :importance 89)
   if [daily-commute ?who yes]
      then [portability ?who high])

(defrule portability (:backward :certainty 1.0 :importance 88)
   if [and [portability ?who low]
       [performance-requirement ?who maximum]]
   then [desktop-replacement ?who yes])
```

```
(defrule no-desktop-replacement (:backward :certainty 1.0 :importance 88)
  if [and [or [portability ?who high]
              [portability ?who medium]]
          [or [performance-requirement ?who medium]
              [performance-requirement ?who minimum]]]
  then [desktop-replacement ?who no])

(defrule any-portability (:backward :certainty 1.0 :importance 88)
  if [wants-mobility ?who no]
      then [portability ?who none])

(defrule no-portability (:backward :certainty 1.0 :importance 88)
  if [wants-mobility ?who no]
      then [daily-commute ?who no])

(defrule no-portability2 (:backward :certainty 1.0 :importance 88)
  if [portability ?who none]
      then [desktop-replacement ?who no])

(defrule desktop-replacement (:backward :certainty 1.0 :importance 88)
  if [and [portability ?who low]
          [performance-requirement ?who maximum]]
  then [desktop-replacement ?who yes])

-- mac rules
(defrule mac-ibook1 (:backward :certainty 0.5 :importance 88)
    if [and [portability ?who high]
            [canUseMacPlatform ?who yes]]
    then [computerType ?who mac-ibook])

(defrule mac-ibook2 (:backward :certainty 0.5 :importance 88)
    if [and [performance-requirement ?who minimum]
            [canUseMacPlatform ?who yes]]
    then [computerType ?who mac-ibook])

(defrule mac-ibook3 (:backward :certainty 0.5 :importance 88)
    if [and [expectedspendingamount ?who low]
            [canUseMacPlatform ?who yes]]
    then [computerType ?who mac-ibook])


(defrule mac-powerbook-seventeen (:backward :certainty 0.5 :importance 88)
    if [and [canUseMacPlatform ?who yes]
            [desktop-replacement ?who yes]]
    then [computerType ?who mac-powerbook-seventeen])

(defrule mac-powerbook-seventeen2 (:backward :certainty 0.5 :importance 88)
    if [and [canUseMacPlatform ?who yes]
            [expectedspendingamount ?who high]]
    then [computerType ?who mac-powerbook-seventeen])


(defrule mac-powerbook-fifteen (:backward :certainty 0.5 :importance 88)
    if [and [canUseMacPlatform ?who yes]
            [performance-requirement ?who medium]]
    then [computerType ?who mac-powerbook-fifteen])
```

```
(defrule mac-powerbook-fifteen2 (:backward :certainty 0.5 :importance 88)
    if [and [portability ?who medium]
            [canUseMacPlatform ?who yes]]
    then [computerType ?who mac-powerbook-fifteen])


(defrule mac-powerbook-fifteen3 (:backward :certainty 0.5 :importance 88)
    if [and [canUseMacPlatform ?who yes]
            [expectedspendingamount ?who medium]]
    then [computerType ?who mac-powerbook-fifteen])


(defrule mac-mac-mini (:backward :certainty 0.5 :importance 88)
    if [and [canUseMacPlatform ?who yes]
            [portability ?who none]]
    then [computerType ?who mac-mac-mini])


(defrule mac-mac-mini-portability (:backward :certainty 0.2 :importance 88)
    if [and [canUseMacPlatform ?who yes]
            [portability ?who low]]
    then [computerType ?who mac-mac-mini])


(defrule mac-mac-mini2 (:backward :certainty 0.5 :importance 88)
    if [and [canUseMacPlatform ?who yes]
            [performance-requirement ?who minimum]]
    then [computerType ?who mac-mac-mini])


(defrule mac-mac-mini3 (:backward :certainty 0.5 :importance 88)
    if [and [canUseMacPlatform ?who yes]
            [expectedspendingamount ?who low]]
    then [computerType ?who mac-mac-mini])


(defrule mac-imac-g5 (:backward :certainty 0.5 :importance 88)
    if [and [canUseMacPlatform ?who yes]
            [portability ?who none]]
    then [computerType ?who mac-imac-g5])


(defrule mac-imac-g52 (:backward :certainty 0.5 :importance 88)
    if [and [canUseMacPlatform ?who yes]
            [performance-requirement ?who medium]]
    then [computerType ?who mac-imac-g5])


(defrule mac-imac-g53 (:backward :certainty 0.5 :importance 88)
    if [and [canUseMacPlatform ?who yes]
            [expectedspendingamount ?who medium]]
    then [computerType ?who mac-imac-g5])


(defrule mac-power-mac-g52 (:backward :certainty 0.5 :importance 88)
    if [and [canUseMacPlatform ?who yes]
            [portability ?who none]
            [performance-requirement ?who maximum]]
    then [computerType ?who mac-power-mac-g5])


(defrule mac-power-mac-g53 (:backward :certainty 0.5 :importance 88)
    if [and [canUseMacPlatform ?who yes]
            [portability ?who none]
            [expectedspendingamount ?who high]]
    then [computerType ?who mac-power-mac-g5])
```

```
-- windows rules
(defrule windows-laptop-lowend-sony-b-series1 (:backward :certainty 0.5 :importance 88)
    if [and [canUseWindowsPlatform ?who yes]
            [portability ?who high]]
    then [computerType ?who windows-laptop-lowend-sony-b-series])

(defrule windows-laptop-lowend-sony-b-series2 (:backward :certainty 0.5 :importance 88)
    if [and [canUseWindowsPlatform ?who yes]
            [expectedspendingamount ?who low]]
    then [computerType ?who windows-laptop-lowend-sony-b-series])

(defrule windows-laptop-lowend-sony-b-series3 (:backward :certainty 0.5 :importance 88)
    if [and [canUseWindowsPlatform ?who yes]
            [performance-requirement ?who minimum]]
    then [computerType ?who windows-laptop-lowend-sony-b-series])

(defrule windows-laptop-highend-sony-a-series1 (:backward :certainty 0.5 :importance 88)
    if [and [canUseWindowsPlatform ?who yes]
            [desktop-replacement ?who yes]]
    then [computerType ?who windows-laptop-highend-sony-a-series])

(defrule windows-laptop-highend-sony-a-series2 (:backward :certainty 0.5 :importance 88)
    if [and [canUseWindowsPlatform ?who yes]
            [expectedspendingamount ?who high]]
    then [computerType ?who windows-laptop-highend-sony-a-series])

(defrule windows-laptop-midrange-sony-fs-series1 (:backward :certainty 0.5 :importance 88)
    if [and [canUseWindowsPlatform ?who yes]
            [portability ?who medium]]
    then [computerType ?who windows-laptop-midrange-sony-fs-series])

(defrule windows-laptop-midrange-sony-fs-series2 (:backward :certainty 0.5 :importance 88)
    if [and [canUseWindowsPlatform ?who yes]
            [performance-requirement ?who medium]]
    then [computerType ?who windows-laptop-midrange-sony-fs-series])

(defrule windows-laptop-midrange-sony-fs-series3 (:backward :certainty 0.5 :importance 88)
    if [and [canUseWindowsPlatform ?who yes]
            [expectedspendingamount ?who medium]]
    then [computerType ?who windows-laptop-midrange-sony-fs-series])

(defrule windows-desktop-midrange-sony-v-series2 (:backward :certainty 0.7 :importance 88)
    if [and [canUseWindowsPlatform ?who yes]
            [portability ?who none]
            [performance-requirement ?who medium]]
    then [computerType ?who windows-desktop-midrange-sony-v-series])

(defrule windows-desktop-midrange-sony-v-series3 (:backward :certainty 0.7 :importance 88)
    if [and [canUseWindowsPlatform ?who yes]
            [portability ?who none]
            [expectedspendingamount ?who medium]]
    then [computerType ?who windows-desktop-midrange-sony-v-series])

(defrule windows-desktop-lowend-sony-rb-series2 (:backward :certainty 0.7 :importance 88)
    if [and [canUseWindowsPlatform ?who yes]
            [portability ?who none]
```

```
                [performance-requirement ?who minimum]]
    then [computerType ?who windows-desktop-lowend-sony-rb-series])

(defrule windows-desktop-lowend-sony-rb-series3 (:backward :certainty 0.7 :importance 88)
    if [and [canUseWindowsPlatform ?who yes]
            [portability ?who none]
            [expectedspendingamount ?who low]]
    then [computerType ?who windows-desktop-lowend-sony-rb-series])

(defrule windows-desktop-highend-sony-ra-series2 (:backward :certainty 0.7 :importance 88)
    if [and [canUseWindowsPlatform ?who yes]
            [portability ?who none]
            [performance-requirement ?who maximum]]
    then [computerType ?who windows-desktop-highend-sony-ra-series])

(defrule windows-desktop-highend-sony-ra-series3 (:backward :certainty 0.7 :importance 88)
    if [and [canUseWindowsPlatform ?who yes]
            [portability ?who none]
            [expectedspendingamount ?who high]]
    then [computerType ?who windows-desktop-highend-sony-ra-series])
```